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Vol. X., No. 2.

FEBRUARY, 1859.

New Series, Vol. I., No. 2.

THE FARMER AND PLANTER



PRICE, \$1 A YEAR, ALWAYS IN ADVANCE.

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OUR ADVERTISEMENTS.

We refer our readers to the advertisements in this number. We hope all who feel any interest in purchasing upon the most advantageous terms, will examine the claims of each advertiser in our journal this month. The Farmers and Planters of our State will find in our advertising list the names of some of the most reliable houses in Columbia, and we hope their patronage to the Farmer and Planters' Journal will be a recommendation for them. We cannot mention all the names, but leave our readers to examine.

TO THOSE IN ARREARS.

Many, no doubt, will be surprised at not receiving this number of the FARMER AND PLANTER; but while we regret parting with any of the old subscribers to the journal, we would inform them that we are determined to strictly adhere to the Cash system, *in every case*, and those who do not receive the February number, may safely surmise that we have not sent it, because it is not paid for. There is a large amount due for arrearages, which we shall collect as soon as it is possible for us to do so; but, until those arrearages are paid, we cannot forward the journal.

The price of the FARMER AND PLANTER is too low to allow for losses: and whilst there is no danger of its being discontinued this year, we are determined not to suffer loss by the credit system.

OUR ADVERTISING PRICES.

We hear that many persons complain that our charges for advertising are higher than they pay other papers. To such persons we would say that our subscription list is much larger than any other journal in the State; and, further, in some Districts we have as many subscribers as the District paper. The FARMER AND PLANTER circulates throughout every District in the State, and its advertising circulation, we believe, is equal to any three journals in South Carolina. We are not disposed to make compromises in the matter. Our terms are published, and those wishing to avail themselves of the advantages we offer, must expect to pay our prices.



VOL. X.

FEBRUARY, 1859.

NO. 2.

R. M. STOKES, }
PROPRIETOR.

COLUMBIA, S. C.

{ NEW SERIES,
VOL. 1, No. 2.

For the Farmer and Planter.

THE APPLICATION OF RHODES' SUPER-PHOSPHATE AND PERUVIAN GUANO TO COTTON---SALT FOR WHEAT---TURNIP CROP, &c.

Landsford P. O., Chester District, S. C.

COL. A. G. SUMMER—

MY DEAR SIR: I take the liberty of writing you, and begging information in regard to the use of "Rhodes' Super-Phosphate of Lime," and Peruvian guano, as I have more faith in your knowledge of their best mode of application, than of any gentleman of the agricultural world.

Will you please write me how much of each (separately, of course,) you would apply to cotton, and how mixed, and applied, on lands of rather a sandy loam; how much per acre to be applied to corn, and the mode of applying it; also, to wheat, oats, and sweet potatoes. You will please give me your opinion of salt as a fertilizer, and its mode of application. I think of sowing salt, at the rate of $1\frac{1}{2}$ to 2 bushels per acre, on my wheat, in the month of February. Will it do? I have some cotton lands that have what we call black-jack rust, *i. e.*, all the leaves shed off. Which will relieve that best, the "phosphate," the guano, or salt? or will they all, or any, do it?

I design manuring my whole crop with those three articles above named, and know very little with what to mix them, or how to apply them when mixed, and would prefer your judgment to any other writer on the subject. You will please excuse my troubling you for the desired information, but I cannot get it satisfactorily from any other source, and therefore write you.

I remain, yours,

L. A. BECKHAM.

REPLY.

A protracted absence from the State has prevented me from replying sooner to your letter of enquiry, and having received several others touching on the same topics, I deem no apology necessary, for answering all by one communication in the *Farmer and Planter*.

Rhodes' super-phosphate of lime, requires no mixer, nor any preparation. It is in a fine state of division, and not inconvenient to handle. I would apply it to cotton, at the rate of 100 lbs., and 40 lbs. of guano, to the acre—the super-phosphate in the drill, throwing the bed heavily on it; the guano in the furrow, with the seed, using for the latter charcoal or plaster of Paris, as a mixer. If I used super-phosphate alone, I would apply 160 to 175 lbs. per acre, in the drill. Of Peruvian guano, I think from 75 to 100 lbs. a sufficient quantity per acre. Use charcoal as a mixer. I invariably apply specific chemical manures to drilled crops, in the drill, with the exception of corn, which, from its wide-spreading, fibrous roots, is more benefitted by a broad-cast application. It requires so large a quantity of these concentrated manures to broadcast an acre, that it does not pay as well as in the drill. For corn, I would broadcast 200 lbs. super-phosphate, or 150 lbs. Peruvian guano, to the acre. For wheat, 100 lbs. super-phosphate, or 75 lbs. guano—using charcoal, and one bushel of salt per acre. I sow it broadcast, when I sow the wheat, and plough both under at the same operation. For oats, Rhodes' super-phosphate is the best manure I ever tried—that crop requiring the large amount of phosphoric acid which is furnished by it. I would not hesitate to sow, per acre, from one to two bushels of salt on wheat, in a damp spell of weather,

in February. It would destroy many of the pests which afflict the crop, and, by strengthening the straw—a peculiar property of salt on wheat—it gives vigor to the plant, and insures its exemption from lodging on rich land. JOHN JOHNSTON, a successful wheat-grower of Geneva, New York, sows large quantities of salt on his wheat lands.

I sowed seventy-five acres (half our usual crop of wheat at Pomaria) this season, with a compound of 30 lbs. Peruvian guano, 40 lbs. Elide Island guano, 50 lbs. Sombrero guano, and 60 lbs. salt per acre, thoroughly incorporated with chareoal by running it through an old wheat fan deprived of its winnows—which is a capital implement for this purpose. I simply poured on the pile, a measure of each of the above articles containing the proper weight, until I had the desired quantity, and ran it through the fan once, which thoroughly incorporated it. Filling in a barrel or box with each of the measures, and computing for the bulk of the chareoal, after mixed together, gives the proper quantity for an acre. The Peruvian and Elide Island guanoes were first sieved, so as to be free from lumps. Lumps of Peruvian guano are more easily reduced by being moistened with salt water, and then mingled with salt in bulk. They are, after a few days, easily pounded fine, by using a common maul, but can be rapidly reduced by being passed through an old cob-mill. This treatment, with the addition of salt, makes the merchantable "*Manipulated Guano*" of the venders; or, if not the exact article, as good. The wheat sown with the preparation, now (February 1st,) is as fine-looking as I ever saw at this period of the year. It was sown from November 20th, to December 1st. After ploughing the wheat and manures under—the land having first been thoroughly broken—I ran *Crosskill's Clod-Crusher* (manufactured by Sinclair & Co., Baltimore,) over twenty-five acres. This portion is by far the evenest, and looks finest. The repeated rains prevented my using this implement on the whole field.

I intend to apply from one to two bushels of salt, broadcast, per acre to our entire crop of cotton at Pomaria, this season. I would, on the black-jack land referred to, apply as full a dose as three bushels of salt, broadcast, per acre. This, with good drainage and liberal specific manuring, say 150 lbs. super-phosphate, or 100 guano, in the drill, in addition to compost manure, will, in my opinion, prevent rust. Rust is a disease supposed to result from an unhealthy state of the soil; and, on such lands as you describe, results from bad drainage, and a lack of vegetable matter. The pipe-clay is

very near the surface, or the soil is filled with numerous round black pebbles, denoting sterility. I know no way to relieve this, but to strike at the root, *drain well, and then give the plants proper nutrition.*

As to sweet potatoes, my crop was a failure, resulting from the miserable seed planted. I know that super-phosphate, both for sweet or Irish potatoes, is a good fertilizer; but for the former there is nothing so certain as a liberal quantity of cottonseed, placed under the bed, either so deeply that they will not vegetate, or have their vitality destroyed before applied. A neighbor of mine, who is wise enough to plow deep, gives this application as the best for a certain crop, and he never fails.

I have produced this season a most superb crop of ruta-bagas, sown on oat stubble, 10th August, by the application of Rhodes' super-phosphate at the rate of 250 lbs. per acre, applied in the drill, under the bed. The bulbs are very large, whilst the tops are seldom six inches high. They are model turnips, both as to shape, size, and symmetry.

I would refer you to a letter addressed to Mr. Rhodes last October, on the subject of his super-phosphate, for the exact particulars of my use of it, and the results, in 1858. I do not know that we can extensively use these manures, longer than to produce a few full crops, to enable us to get ahead with composting and farm-yard manure, so as to furnish our crops and soil with permanent elements derived from the plantation itself. My experience militates against them; for the expense of transportation in a great measure deprives us from using them extensively. Even the freight on salt from Charleston to this place, is exactly the prime cost of it in that city.

I need not add, that I am always happy to give such information as I am able, on agricultural matters, and most cheerfully do so.

A. G. SUMMER.

L. A. BECKHAM, Esq.

"Pomaria, S. C., Oct. 23d, 1858.

Messrs. B. M. RHODES & Co., Baltimore—

GENTLEMEN: A number of causes have prevented my giving you the results of my experiments with your super-phosphate of lime before this. I am now prepared to give the results on all the crops to which it was applied, which I could not have done at an earlier date.

On the 2d of January, *fully six weeks too late*, I sowed 20 acres of wheat, with an application of 150 pounds Rhodes' super-phosphate and 40 pounds Peruvian guano. This wheat grew finely—was luxuriant the whole season, and, although much injured by the frost of the 27th April, when it was in head, it yielded about *thirteen bushels to the acre.*

My wheat, treated with the usual amount of Peruvian guano, costing the same as the super-phosphate, did not yield *six bushels per acre*, and never looked as well at any stage of its growth. Before the frost, I estimated the wheat treated with super-phosphate as promising to yield from 20 to 22 bushels per acre. This was on exhausted soil, and the experiment, taking the disasters of the season into consideration, has been satisfactory to me.

At the same time I sowed barley and rye, giving each acre 250 pounds super-phosphate and 50 pounds guano. *These crops were no better than if I had not applied the super-phosphate, and I consider that it did them no good.* I also sowed white Egyptian winter oats same date, and made the same application as to wheat. On this crop, the results were highly satisfactory, for this field was the only crop which escaped the rust in the vicinity, and was certainly the best oats, both in grain and straw, I ever raised. The crop was the admiration of all who saw it, and I regret I did not thresh a given number of acres, so that the result might be properly chronicled. I made an application of 200 pounds per acre to Indian corn. The growth was admirable until the intense drouth cut it off, just as it was shooting. After intense heat, and an absence of rain for a long time, the clouds promised an abundant season, and my overseer injudiciously plowed the corn. It rained only a slight shower, and this plowing cut off the corn fully one-fourth. It however has made a fair yield, and the increased crop of peas will pay me for the super-phosphate applied. It had a remarkable effect on the peas, as they grew luxuriantly, even during the drouth, and have borne a heavy crop.

On cotton I applied it with an eye to its relative cost, with Peruvian guano. The drouth so cut off this crop, that it has not had a fair chance. The cotton to which super-phosphate was applied, remained greener, and is now greener than that manured with guano. It bid fair, previous to the drouth, to make a superb crop. It is superior, for cotton, to the best compost manure, as it does not cause it to drop its forms so much as the compost does. I find that on cow-penned land, and that manured with compost manure, the crop has suffered most. *I have remarked, that not a single stalk was rusted in the field to which the super-phosphate was applied.* This is worthy of note, and, if it is a preventive, will enhance its value.

On beans, peas, and the entire pulse family, its effects have been all I could desire.

In spite of drouth, and against difficulties which, with the application of Peruvian guano, would have insured the destruction of the crop, by the application of the super-phosphate at the rate of 250 pounds per acre, I have a fine field of ruta-baga turnips. Although the summer drouth, in which they were planted, with the exception of a few slight showers, still continues, they are growing finely, and bid fair to make an average yield. I had a slight season to bring them up, since which time it has rained sufficient to enable us to plow but once. Last year, with similar seasons, and with Peruvian guano as a fertilizer, I did not save a single plant on six acres planted. I now have ten acres of fine turnips, all attributable to the use of the super-phosphate.

On Irish potatoes, the result has been satisfactory. I have not yet examined the sweet potatoes, to which I applied it, but from the appearance of the vines, I think it equally effective for this crop.

My experiments have not been on a small scale, as you are aware. I used about ten tons; but the precarious season, and intense drouth, have, no doubt, seriously impaired its effects on many crops.

I am more and more convinced of the value of the phosphatic manures over the highly stimulating guanoes. Their effects on the pea crop, which is destined to be the great fertilizer of the South, would enable planters to bring any of their lands into good heart, and in time to make it extremely fertile. I prefer Rhodes', with his present analysis, to any manure I have tried.

Very truly,

A. G. SUMMER."

[*South Carolinian*, Nov. 11th, 1858.]

BAREFOOTED NOTES ON SOUTHERN AGRICULTURE.

BY AN OLD GRUMBLER.

NO 1.

Cotton System.—Necessity for change—for cheap food.—Nutritious Elements of Indian Corn.—The best Cereal for the Negro.—“Flush Times.”—Reverse the Picture. Sailing on the Ocean.

Industrious tillers of the soil—brave exterminators of the whole family of *Graminæ*—lordly clean cultivators of the cotton-fields—sharpen your scooters—your shovel-plows—your “one-toothed harrows”—your glittering steel cotton-hoes, and your miserable scarifiers of mother earth—bring into battle array all the fixtures and inventions, which half a century has piled up around you, to aid in the grand work of destroying rural improvement—let loose all your prejudices in favor of the snowy fleece of the wealth-bearing staple—for “AN OLD GRUMBLER” now ventures suggestions in favor of some changes in the planting system.

We do not intend merely to take a lick at the remunerating culture of cotton, to foster one interest at the expense of another, but hope to show, that large additions to our wealth might be made, by a few simple and easily-effected changes, without in the least affecting the present marketable crops of the State. Every community, to be prosperous, must be furnished with an abundant and cheap supply of food, both for laborers and domestic animals. This is a fact which needs no proof, and the converse does not hold good on the rich alluvial lands of the West—as no system of agriculture has ever flourished or prospered, unless the main articles of consumption were produced at home. When the purse-strings open to fill the grain-sacks, and there is no Joseph in Egypt to return the silver, thrift will not follow the con-

sumption of purchased grain. Not even the highly remunerating sugar interests of Louisiana, allow such a system of foreign expenditure. Well-fed negroes, with plenty of bacon and lard, butter and milk, mutton and beef, in their season, are never found on those plantations where all the varieties of domestic stock are not reared and well cared for.—Where bacon has to be bought from the abolition packers of Porkopolis for the domestic supply, prudent economy too frequently metes it out with a sparing hand, and the plantation negro never enjoys the rural blessings of butter and milk, or fresh meats, in very great abundance, if at all. Where the negro is well fed, on the strong food which he delights in, he is vigorous for work—healthy, happy, and contented—and increases in numbers much more rapidly than where they are stinted in the quantity, and are furnished with indifferent and ill-adapted food. Whilst we advocate the furnishing of an abundant supply of vegetables, we firmly believe, from experience, both in South Carolina and a more tropical climate, that, constitutionally, the laboring negro requires highly stimulating animal food, and all our notions are strangely at variance with the vegetarians. Every plantation, then, should produce its own bountiful supply of animal food, in order to insure health, prosperity and thrift to the negroes.

It may not be amiss to state here, as a peice of outside information, that the usual allowance of a peck of Indian corn meal, as the bread portion of a negro for a week, by recent chemical investigations, is shown to contain a larger amount of an essential oil than any other cereal grown.

The structure of a grain of Indian corn presents instructive studies to the observer. The corneous and farinaceous portion of the kernel, serves to protect the embryo, and afford it nutriment in the early vital action of the plant. This embryo is the richest part, and in it is collected very different materials, when contrasted with the other portions of the kernel. It is the seed's storehouse—long ago discovered by the mouse and the squirrel; not, as is commonly supposed, on account of its softness, but from its richness. *Oil* and *albumen*, with a small per centage of *starch*, have a great deal to do in protecting this portion of the kernel from shriveling, and becoming hard, under some circumstances, and under others, controlling the absorption of moisture—thus regulating germination. By these wise proportions of the constituent elements of the grain, its vitality is preserved, in favorable situations, almost to an indefinite period; for we have authority stating that it has germinated when *thirty*

years old. From SALSURY'S Analysis we perceive that the *oil* in the embryo amounts to from 26 to 30 per cent., and the *albumen* from 17 to 20 per cent. of the dry matter, while the *starch* ranges from 10 to 12½ per cent. In the corneous part, the *oil* does not exceed 3 per cent., and the *albumen* 1½ per cent., while the *starch* amounts to about 52½ per cent. A farinaceous portion afforded a little over 3 per cent. of *oil*, and less than 2 per cent. of *albumen*, whilst it gave of *starch* about 59 per cent. *Zein* exists in the largest portions in the corneous parts of the grain, whilst *dextrine* and *gum* are found, both in this and the embryo, in larger proportions than in the rest of the kernel. These investigations so fully show the value of the different portions of the grain, that it is evident the greatest efforts of the plant are exerted in maturing and preserving the embryotic portion, and economical suggestions as to its value and production, result as a consequence.

This property in Indian corn fully accounts for the negro's preference for it, over all other grains. Hence, as bread, it must ever continue, not only most popular, but best adapted to the constitution of the negro; and its general use, in coarse meal, hominy, and simple mush, largely indulged in, with liberal allowances of greasy bacon, together acting mechanically, shows a total exemption in him from such diseases as dyspepsia, constipation, and piles—unknown to any other class of human beings. What causes this? Is it vigorous constitution, peculiar food, or the wholesome exercise of labor? Or, is it a happy combination of all these?

The system of planting, which produces only as much of the cereals as will suffice for the domestic consumption of the plantation, and bends every other energy, and devotes every arable acre, not thus occupied, to the production of cotton, relying on foreign supply for the bacon, is one which has proved destructive to much more than we are now willing to contemplate—wafted on as we are by gales of prosperity, into these "flush times" of full prices for the great absorber. It would be needless, now, to state how much wood-land might have been preserved, how much worn-out might have been reclaimed, how much money might have been kept at home, and re-invested, year after year, again and again, if other systems had been fully, or even partially, adopted by our agriculturists—for we will be met at the suggestive threshold, by the comfortable assurance, that "*the present prices pay*," and they can afford to follow a system still farther, which has brought the country over many a wreck and disaster, on a full tide of prosperity, to the haven of suc-

cess. Such is the confidence of the bold mariner, as, when guiding some tall ship, he rides the sea, buoyant with will, and hopeful of the future—he rules the elements above and beneath him—and sees no swallowing vortex in the glassy bosom of that ocean over which he is so smoothly gliding.—Nature has her moods of slumber and rest—and she, too, has her seasons of frenzy and disaster. So with the most skilfully and successfully arranged systems of man:

“They flourish and they fade;
A breath can make them, as a breath has made.”

For the Farmer and Planter.

CHINESE SUGAR CANE.

MR. EDITOR: No foreign plant has ever been introduced into the country which has swept over it with such a “furor” as the “*Sorghum Saccharatum*.”

Incredible have been its attributes. It was to make good sugar, good syrup, good brandy, good beer, good flour, good dye-wood, and good paper. It is one of our American peculiarities, to always expect too much of a good thing. One virtue is never sufficient—it must claim every one under the sun. We are optimists, and the moment we find out that our sanguine expectations are not going to be realized, we get into a pucker, and denounce it all as humbug.

Careful experiments, made by distinguished chemists during the last year, have settled the point that the sorghum belongs to the family of grasses which secrete “glucose,” or fruit sugar—not crystallizable or cane sugar. The value of cane sugar, compared to glucose, or grass sugar, is as 3 to 1. We may give up, then, the hope of making sugar profitably. Carefully-conducted experiments, during the last year, however, have satisfied the writer that a very good syrup can be manufactured at the rate of 50 cents per gallon, and for even less, by the small farmer who is not entirely engrossed with the cotton crop. This will prove an inestimable blessing, bringing it within the means of almost every farmer owning a horse and an acre of ground, to provide their families with a luxury.

But the great value of the sorghum rests not in its syrup-making qualities, but in its being, for all animals, one of the cheapest, most delicious, and nutritious articles of food; particularly during a season of the year when a scarcity prevails. The period between the small-grain harvest gleanings and the pea crop, is a very trying one; and my friend, Maj. W. S. LYLES, asserts, from carefully-conducted experiments, that land planted in sorghum will pay

better in food for hogs, horses, mules, and cattle, during the autumnal months, than anything else.

If a few acres of sugar cane—even on the best land a man has—will keep his stock out of his corn-cribs until the pea fields are open, and start them into winter quarters in good order—fat, sleek, and contented—there is no telling its value.

Don't get alarmed, and cry humbug! but try it again; try it as a part of the farm crop—as an investment, not as a fancy experiment—and you may rest assured it will pay. GLUCOSE.

COTTON IN INDIA.

The importance of a regular supply of cotton for British manufactories is such that, for some years, various efforts have been made, at the instance of the British Government, to establish the culture of cotton in India. It is found, however, that the climate is unfit for its cultivation: or that the absence of railroads, for the present, creates obstacles to the transportation of heavy articles to the seacoast for transshipment. We have before us a document read recently before the British Association, at Cheltenham, upon “the actual relation of the slave system of the United States to the cotton manufactures of Great Britain.” The writer concludes that, in the present state of the commercial relations of the two countries, the cotton planters of the United States are interested to the extent of about two-thirds of their exportable produce, in the maintenance of the cotton manufacture of the United Kingdom.

Further, that, reciprocally, the cotton manufacturers of Great Britain, and through them, the entire population of the kingdom, are interested to the extent of four-fifths of the raw material of that manufacture, in the existing arrangements for maintaining the cotton culture of the United States. According to examinations made at Liverpool, the average weight of the cotton bale is as follows:

From the United States,	450 pounds.
From Brazil,	200 “
From Madras and Bombay,	420 “
From Calcutta,	300 “
From Egypt,	280 “

The increased weight in those of the United States and Madras, appears to be due to increased pressure in packing, to save freight.

If England could succeed in producing the culture of cotton in India, so as to supply her own manufactures, she would lose the United States as a large market for her cotton goods. In order to show the grounds upon which the English writer arrives at the conclusion above stated, we recapitulate the items, viz:

1. That cotton must be grown, almost entirely, out of Europe, and manufactured chiefly in Europe; and, in Europe, chiefly in Great Britain.

2. That cotton has hitherto been grown, and, as far as yet appears, must continue to be grown, chiefly by slave labor.

3. That for the last fifty years Great Britain, seeking her supply of cotton all over the earth, with a preference, during the greater part of that period,

for the produce of free labor, has yet received, during the whole of that period, and continues to receive, all the cotton she imports of the better qualities, and by far the greatest part of all she imports, in bulk as well as value, from the countries in which it is grown by slave labor.

4. That cotton is grown in the United States exclusively by slave labor.

5. That two-thirds, at least, of the slave population of the United States are employed in raising cotton for exportation.

6. That of the cotton thus raised for exportation, about two-thirds in quantity, and more than two-thirds in value, is raised expressly for the British market, and is regularly imported into, and manufactured in, the United Kingdom; and

7. That of the entire quantity of cotton imported into, and manufactured in, the United Kingdom, nearly four-fifths in quantity, and more than four-fifths in value, is, on an average of years, obtained from the United States.

It would have been more agreeable to me, and also, no doubt, to those who may read this communication, to dispense with the formality with which I have stated these propositions; but no grace of composition, were I successful in attempting it, would here compensate for want of fullness or accuracy.

COTTON SUPPLY.

The returns of the British export trade for the ten months to October 21, 1858, show a considerable increase of exports in dry goods generally, as follows:

	1857.	Value. 1857.
Cottons.....yards,	1,707,247,289	£24,770,736
Cotton Yarn.....lbs,	153,577,075	7,555,110
Linens.....yards,	118,658,353	3,683,616
Silks.....lbs,	563,555	722,731
Woolens.....pieces,	638,377	2,652,350
Woolens.....yards,	68,661,646	3,359,696
	1858.	1858.
Cottons.....yards,	1,897,766,111	£26,065,587
Cotton Yarn.....lbs,	164,196,030	7,817,680
Linens.....yards,	99,789,307	3,082,565
Silks.....lbs,	408,420	506,360
Woolens.....pieces,	491,475	2,186,415
Woolens.....yards,	61,633,490	2,760,888

The exports of cotton goods have been very considerably increased to China and the East Indies. To the latter country, particularly, the increase has been very large—from 378 million yards in 1857, to 646 million yards in 1858, at an increased value of £15,000,000, an important item in the exchange transactions between the two countries. The change in the Indian trade, in respect of cotton goods, is very remarkable, being as follows:

Cotton imported from Br. East Indies.		Export of goods to East Indies.	
		Yards.	Yarn, lbs.
1857...cwt.	1,644,080	378,789,074	15,453,085
1858... "	849,449	646,261,207	30,250,588
Decrease.....	794,631		
Increase.....		267,472,133	14,794,503

The quantity of raw cotton received from the East Indies has declined one-half; and the export of goods thither has doubled. In other words, the

quantity of raw cotton received from the East Indies into Great Britain in 1858 has been 95,363,012 lbs., and the quantity sent thither has been 248,261,000 lbs., or, reduced to 400 lb. bales; the receipts have been 238,000 bales, and the exports thither 620,000 bales. This is a singular source from which to increase the "cotton supply." All the sources for the supply of cotton which England lays out, operate necessarily in the same way, since the mere cultivation of cotton and the development of trade which its sale involves, causes a demand for goods in excess of the quantity of raw material which can be supplied. All the natives of those regions require cotton cloths, and it is absurd to suppose that the machinery of Europe will not supplant the rude manufactures of the natives. The talk is of Africa, Algiers, and other countries, as sources of supply. These are populous countries of rude races, and all the cotton they can possibly raise, with the best aid, never can keep up with the demand for goods. China alone, poor as the individuals are that compose it, will absorb more cotton, when prepared by machines, than can be spared.

The demand for cotton is hourly on the increase all over the world, and the United States being now the only source of surplus supply, are gradually absorbing that surplus. It is very evident that the manufacturing power is drawing towards and concentrating round the plantations, in such a manner that the United States will first cease to export cotton, and next the cotton States will export only in the shape of goods. The South has been exempt, in the last few years, from speculation, and she has acquired a very large capital from cotton sales, which will find its way into manufacturing, and the cotton of the South will be sold no longer by the bale, but by the yard. The value of cotton of late years has, no doubt, risen relatively to that of the other raw materials, and these, with the exception of silk, well maintain their value. But cotton is coming to be more important—to take a high relative rank, and its prices must advance with the effective demand for growing trade.

The improved crop of silk this year has caused some decline in the price of that article, as compared with the extreme rates of late years, but the value of wool and linen has rather increased than otherwise. In fact, not only in the United States, but abroad, there is an evident scarcity of wool, and prices have risen to an extraordinary range for the season of the year. In New York, fleece wool is quoted at 53@55c., against 40@45c. same date last year. The advance in imported wools is not so considerable, but the supplies are limited. In Great Britain, the manufacturers buy with great caution, in view of the very high rates ruling. It is obvious, therefore, that cotton cannot be affected by the too great abundance of other materials, since that abundance does not exist. If the supply of silk is greater, the price is not so depressed as to cause any considerable substitution of silk for cotton, even at a price of 20c. for the cotton. The great demand for human clothing must be spun cotton as a material, and that more particularly from the fact—the spread of trade among new and populous countries not wealthy, and who inhabit warm climates. Such people do not want either costly silk or woollen

goods, but as their condition improves, the demand for a long time will be for more machine-made cotton clothing.

A recent lecturer before the Manchester Cotton Supply Association spoke discouragingly in relation to the China trade, on account of the poverty of the people. The reasoning did not appear to be very sound. Those persons, poor as they are represented to be, wear now some clothing, doubtless, and that clothing is the product of hand-labor in China, and a considerable portion of the material is drawn from India. The question is, whether the manufacturers of England cannot supply the manufactured cotton cheaper than the hand-laborers of China? The people of India are also poor, very poor; but, as we have seen, the goods of England find sale among them to an extraordinary extent, by displacing the hand-made goods of India, and India is a large cotton-buyer. The future points only to the results which we have above pointed out, viz: that with a gradual rise in the value of cotton, the manufacture will so concentrate itself that no surplus of raw material will be spared. The vast machine investments of Europe will then find difficulty in getting raw material to supply their own wants.—*United States Economist*.

EDUCATION OF MECHANICS.

The mechanic whose mind is enlightened with scientific knowledge, has a much greater chance of being instrumental in improving the arts than the mere chemist or philosopher. While the mere philosopher is demonstrating principles and forming theories in his closet, and sometimes performing experiments, only on a small scale—the workman, in certain manufactories, has a daily opportunity of contemplating chemical processes and mechanical operations on an extensive scale, and of perceiving numberless modifications and contrivances, which require to be attended to, of which the mere scientific speculator can form but a very faint and inadequate conception. Being familiar with the most minute details of every process and operation, he can perceive redundancies and defects imperceptible to other observers; and, if he has accurate knowledge of the general principles on which his operations depend, he must be best qualified for suggesting and contriving the requisite improvements. As the mechanic is constantly handling the tools and materials with which new experiments and improvements may be made—observing the effects of certain contrivances, and of deviations from established practice—and witnessing the chemical and mechanical actions of bodies on each other—he has more opportunities of observation in these respects, and, consequently, is more likely than any other class of society to strike out a new path which may lead to some useful invention in the arts, or discovery in the sciences.—But if his mind is not imbued with knowledge, he trudges on, like a mill-horse, in the same beaten track, and may overlook a thousand opportunities of performing experiments, and a thousand circumstances which might suggest new improvements.

In short, in so far as chance is concerned in new discoveries and improvements in the arts, the scien-

tific mechanic has a hundred chances to one, compared with the ignorant artificer, that, in the course of his operations, he shall hit upon a new principle of improvement. His chances of such results are even superior to those of the most profound philosophers who never engage in practical operations, as he is constantly in the way of perceiving what is useless, defective, or in any way amiss in the common methods of procedure. To use a common expression, "He is in the way of good luck; and if he possesses the requisite information, he can take the advantage of it when it comes to him." And should he be so fortunate as to hit on a new invention, he will probably enjoy not merely the honor which is attached to a new discovery, but also the pecuniary advantages which result from it.

We have, therefore, every reason to hope that, were scientific knowledge universally diffused among the working-classes, every department of the useful arts would proceed with a rapid progress to perfection, and new arts and inventions, hitherto unknown, be introduced on the theatre of the world, to increase the enjoyments of domestic society, and to embellish the face of nature. No possible limits can be assigned to the powers of genius, to the resources of science, to the improvement of machinery, to the aids to be derived from chemical resources, and to the skill and industry of mechanics and laborers, when guided by the light which scientific discoveries have diffused around them. Almost every new discovery in nature lays the foundation of a new art; and since the recent discoveries of chemistry lead to the conviction that the properties and powers of material substances are only beginning to be discovered, the resources of art must, in some measure, keep pace with our knowledge of the powers of nature. It is by seizing on these powers, and employing them in subserviency to his designs, that man has been enabled to perform operations which the whole united force of mere animal strength could never have accomplished. Steam, galvanism, the atmospheric pressure, oxygen, hydrogen, and other natural agents, formerly unnoticed or unknown, have been called into action by the genius of science; and, in the form of steamboats and carriages, voltaic batteries, gaso-meters, and balloons, have generated forces, effected decompositions, diffused the most brilliant illuminations, and produced a celerity of motion, both on sea and land, which have astonished even the philosophical world, and which former generations would have been disposed to ascribe to the agencies of infernal demons. And who shall dare to set boundaries to the range of scientific discovery, or to say that principles and powers of a still more wonderful and energetic nature, shall not be discovered in the system of nature calculated to perform achievements still more striking and magnificent? Much has of late years been performed by the application and combination of chemical and mechanical powers, but much more, we may confidently expect, will be achieved in generations yet to come, when the physical universe shall be more extensively explored, and the gates of the temple of knowledge thrown open to all.—Future Watts, Davys, and Arkwrights will doubtless arise, with minds still more brilliantly illuminated with the lights of science, and the splendid

inventions of the present age be far surpassed in the "future miracles of mechanic power," which will distinguish the ages which are yet to come.—But, in order to this "wished-for consummation," it is indispensably requisite that the mass of mankind be aroused from their slumbers, that knowledge be universally diffused, and that the light of science shed its influence on men of every nation, of every profession, and of every rank.

That the remarks of experienced artists and laborers may frequently lead to useful discoveries, may be illustrated by the following facts: A soap manufacturer remarked that the residuum of his ley, when exhausted of the alkali for which he employed it, produced a corrosion of his copper boiler, for which he could not account. He put it into the hands of a scientific chemist for analysis, and the result was the discovery of one of the most singular and important chemical elements, iodine. The properties of this being studied, were found to occur most appositely in illustration and support of a variety of new, curious, and instructive views, then gaining ground in chemistry, and thus exercised a marked influence over the whole body of that science. Curiosity was excited: the origin of the new substance was traced to the sea plants from whose ashes the principal ingredient of soap is obtained, and ultimately to the sea water itself. It was thus hunted through nature, discovered in salt mines and springs, and pursued into all bodies which have a marine origin; among the rest, into sponge. A medical practitioner, Dr. Coindet, of Geneva, then called to mind a reputed remedy for the cure of one of the most grievous and unsightly disorders to which the human species is subject—the goitre—which infests the inhabitants of mountainous districts to an extent, which, in this favored land, we have, happily, no experience of, and which was said to have been originally cured by the ashes of burnt sponge. Led by this indication, he tried the effect of iodine on that complaint, and the result established the extraordinary fact, that this singular substance, taken as a medicine, acts with the utmost promptitude and energy on goitre, dissipating the largest and most inveterate in a short time, and acting, (of course with occasional failures, like all other medicines,) as a specific or natural antagonist against that odious deformity. It is thus that any accession to our knowledge of nature is sure, sooner or later, to make itself felt in some practical application, and that a benefit conferred on science, by the casual observation or shrewd remark of even an unscientific or illiterate person, infallibly repays itself with interest, though often in a way that could never have been at first contemplated.—*The Pen and Lever.*

WHAT ENGLAND PAYS IN ONE YEAR FOR MANURE. It is estimated that England pays annually three hundred millions of dollars for manure, more than the entire commerce of that country. The total value of a year's crop has been reported to parliament, some time ago, as being about three thousand millions of dollars; the crop includes the animal as well as the vegetable. The turnip crop has been estimated, in that kingdom, to be worth fifteen hundred millions of dollars.

WHAT IS GOOD FARMING?

How is it that a man should farm, to do the most credit to himself? It is the general question that must here be considered. A crop of turnips, a herd of cattle, or a sample of seeds, have made many a one's fame ere now; though, after all, these can only be individual items in the account. It is the uniform and methodical excellence of a system that in the long run will be the most likely to pay. To be sure, some have wooed fortune, and wooed her well, too, by directing their energies more particularly to one especial branch of the pursuit.—Such, however, at best, can be but exceptional.—Their very success depends on there being but few others anywhere near an equality with them.—Whereas, good cultivation, on a limited area like ours, can never extend too generally; while, were we called on to fashion a model farmer, we can only repeat that we should have him to mainly depend on the thorough harmony of his arrangements. Like an accomplished musician, or a real gentleman, there should not be a note out of place, or an ornament but what was warranted by its use.

And why not have a model farmer? We have prize oxen, renowned sheep, and famous pigs. Beyond these, even despite the flow of ridicule with which it was so long attempted to swamp the effort, we have still premiums for good laborers.—Each, in their several ways, has been found to answer. No man was ever yet the worse for a little well-merited distinction. And we believe that agriculture would suffer no harm from having a few more of her model men to point to.—*Mark Lane Express.*

PASTURAGE.

"A Practical Farmer," in the *German Town Telegraph*, says, that in North Wiltonshire, famous for its excellent dairy products, the farmers are in the practice of mixing sheep with cows, to prevent the pastures from becoming too luxuriant, in the proportion of one sheep to one cow. An English author recommends the mixing of a few sheep and one or two colts in each pasture for horned cattle. Another writer on English Husbandry, says that the following method has long been successfully practiced by the Hollanders, and recommends its adoption in his own country. He remarks, that when eight cows have been in the pasture so long as entirely to consume all the grass they can graze, and can of course no longer obtain the necessary quantity of food, two horses will find a sufficiency of food for several days. After these begin to fail of procuring an adequate amount, daily, to supply their wants, four sheep will be able to live in the enclosure, and procure food, for weeks. Sheep, however, should never be permitted to occupy the same pasture with black cattle, or horses; they foul and trample more food than they consume; but when it is convenient to take the former from a field or pasture, sheep may be profitably introduced, to consume what the cattle have left.

RICE CUSTARD.—Boil two ounces of ground rice in a pint and a half of new milk; add four ounces of sugar, an ounce of grated cocoa-nut, four ounces of sweet cream, and bake in a slow oven.

For the Farmer and Planter.

THE GRAPE AND FRUITS IN THE SOUTH-WESTERN ALLEGHANIES.

BY DAVID CHRISTY.

MR. STOKES:—I herewith send you a copy of the *Railroad Record*, in which you will find some letters on the subject of the Grape and other fruits, in our mountain region, which will, in all probability, much interest—as they have me—many of your readers in the up-country. Mr. SILAS R. McDOWELL, as will be seen by reference to a letter published in the December number (Vol. 9) of the *Farmer and Planter*, is a successful cultivator of fruits in the mountains of North Carolina. If his theory of the “Frostothermal line” be correct—and in it he is sustained by the observations of Mr. MURDOCK—the warm belt above it, on many of our mountain-sides, will, before many years roll round, be covered by a much more profitable growth than now occupy them.

Imagine to yourself, Mr. Editor, the face of a single mountain, a mile in height, and many miles in length, presenting, above a certain line, a broad belt of orchards and vineyards, whilst the lower portion, down into the rich valleys at its base, is covered with a most luxuriant growth of clover, and grasses of every description, all spotted over with innumerable herds of sheep, goats, &c. Who would have the bad taste to prefer a residence on a cotton plantation? Not *you*, Mr. Editor, nor your friend,
S.

The views presented in the preceding articles, were the result of personal investigation, and intended to call attention to the South-Western Alleghanies, as the most promising field for vine cultivation eastward of the Rocky Mountains. The theory submitted for consideration, that *altitude* has much to do with successful grape culture, received a strong confirmation in the last letter of Mr. Guerin. The letters which follow, not only show that *mildew* and *rot* do not affect the grape at the higher elevations, but that a belt surrounds the mountains in which Spring and Autumn frosts do not injure either the vintage or the fruit crops. These letters embrace facts not generally known, as well as some new discoveries, which, when amply tested, may be of the utmost importance to North Carolina. The writers live more than fifty miles distant from each other, and the statements made prove that uniform laws prevail throughout the mountains.

The Hon. T. L. Clingman had informed me, that localities existed south of Ashville, in which frosts never affected the fruit crops. The letter of Mr. McDowell shows that a similar state of atmosphere exists in the mountains around Franklin; and the inference is, that the same results may be expected everywhere.

NEW SERIES, VOL. I.—6

Mr. Murdock's letter was written at the request of Hon. T. L. Clingman, and is very satisfactory. Mr. McDowell is a close observer, and has long been a reader of the scientific literature of the country. He is known to the botanical world as the discoverer of a new *Rhododendron*, which takes his name as a new species.

The altitude at which the *thermal* stratum of air prevails, will, of course, differ in different localities; and time and patient investigation will be necessary to arrive at satisfactory conclusions. The fact that the foreign grape has borne fruit for twenty years in succession upon the mountains, amply confirms the views advocated in these articles; and the additional fact, stated to myself by Col. Moore, of Franklin, that when his grapes in his garden escape the Spring frosts, the mildew and rot frequently destroy them, proves, also, that the valleys cannot be relied upon for grape culture.

Ashville, Oct. 4, 1858.

DAVID CHRISTY, Esq.—

DEAR SIR: Your letter of the 25th ult., to Mr. Clingman, he has handed me, with the pamphlet, and requested me to answer it, as he is at present very busily employed, and he thought I could probably do it more satisfactorily.

I have read your publication with much pleasure, and in many things quite agree with you; so far, particularly, as fruit is concerned. I have been thirteen years in this neighborhood, and in Pennsylvania, two, and during that time always found peaches on the mountains when there were none in the valleys. I believe that at three hundred feet above the valleys, apples and peaches rarely, if ever, fail in a crop. Grapes, I believe, in the same situations, would be equally likely to be constantly fruitful and free from rot and mildew. There are situations in this District, high up on the mountains, where the European grapes have, for twenty years, borne twenty successive crops, without mildew or rot; and I know of many around me which they call English grapes, that do constantly bear; but on examining, I have never been able to trace them out to be English or European grapes, and think the odds are much in favor of their being native. I have, in my researches for natives, found out between twenty and thirty varieties of native grapes, some, I believe, of the very best kind; and probably some will prove more valuable than the Catawba, in flavor and aroma. I have sent Mr. Longworth a dozen kinds last year, and if spared till next Spring, I hope to obtain all the other varieties. On the Tryon Mountains, thirty miles south-east of here, in November, last year, I found grapes of excellent quality, still hanging on the vines, and Cayenne pepper as green as in July, although everything that frost would touch was destroyed on the low grounds. I feel quite satisfied that at certain altitudes the frost does not injure in late Spring or early Autumn. I think the soils of the mountains generally well suited to grape and fruit culture.

Mr. N. Woodfin has largely experimented on the mountains' suitability for farming and grazing purposes, and finds them successful, far beyond his most sanguine expectations, for both purposes.—They do not suffer from drouth as the low lands do;

and from my knowledge of sheep-feeding, which extends over a period of upwards of forty years, I would prefer the mountains, prepared properly, to the low lands; and that can be done at no great expense. Grapes, oats, and clover, succeed admirably, particularly the Swedish or Alsac clover, which I have grown for four years with great success.

I remain, respectfully,

Your obedient servant,

WILLIAM MURDOCK.

Franklin, N. C., Oct. 29, 1858.

DAVID CHRISTY, Esq.:

The last time you were at Franklin, we had a conversation in relation to grape culture amongst our mountains. You will recollect that I informed you of some small farms, at the sources of the brooks which run into our valleys, where the European grape had not failed in twenty years, and that other fruits have never been known to fail, from being affected by late frost. Since that time I have devoted much attention to the subject, and searched into the cause, and find it to be to the following effect:

In the Spring, when there is a change in the temperature of the atmosphere, from heat to cold, a frost cannot take place until the atmosphere becomes tranquil and at rest. The warm earth is at the same time radiating its heat and warming the surrounding atmosphere, so that it becomes light and mounts upward until reaching an atmosphere too thin to support it. The consequence is, that it is arrested in its upward progress. After it has left the earth its vacuum is filled by a cold, damp, heavy current, which rests on the surface of the lowest valleys, where the heaviest frosts ever take place. This cold, damp frost stratum, in our valley, near Franklin, I find to be something over three hundred feet deep, and upon the top of this rests the above-named thermal stratum; and their junction is so sudden, that the lower half of a shrub will have its leaves and flowers completely blackened by frost, while its top is unharmed, and retains its most vivid verdure. The frosts of the 27th and 28th of April last, killed all kinds of fruit in our low valleys, while the few orchards which were near the sources of our brooks, on the sides of the mountains, were loaded with fruit—the cause being, an ascending grade up these brooks had brought them above the first line, and within the balmy influence of the thermal stratum.

I have, this Summer, taken the depth of the thermal stratum, and find it near four hundred feet vertical height; and beyond that, the atmosphere becomes so cold—though too dry to produce frost—that it freezes out the young fruit growing.

Of nights, when there was frost, I have ascended up into the thermal stratum, and on reaching the line, sensibly felt the warm air meet my cheeks. I will here venture the prediction, that at any point below the level of this warm, dry stratum, the European grape will not succeed in the Southern Alleghanies, and that above it they will, until you have passed beyond it on ascending grade. I will tell you why I say so: Within the frost stratum, that is to say, from the common level of our valley, three hundred feet upward, I tried to cultivate the grape for ten

years, and failed from the very causes so generally known to all others who have made the attempt; while the small farmer, whose poverty had forced to make his farm away up on the sides of the mountains, having a few vines of the Black Hamburg grape, they have never failed to be loaded with fruit, of perfect cluster and luscious taste, for the space of twenty years. This week I see a letter from Mr. Guerin to yourself, in a number of the *Cincinnati*. That section of it that reads thus: "Ascending beyond this one hundred and sixty feet, etc."—Now, how exactly does this remark coincide with my own observations? Does Mr. Guerin really know that he never can succeed with his grapes until he places them all where they will be bathed, as it were, in this dry, warm, and balmy region?—These are facts which must be known and acted on before success will crown an effort to make the Southern Alleghanies a wine-producing country.—The observations which I have made of the wonderful production of the few vines cultivated by those farmers on the mountain-sides, the rich quality of the fruit, and their unfailing yield for more than twenty consecutive years, renders me confident that no country will surpass it in grape husbandry, where the vines are cultivated within the thermal zone above indicated.

Respectfully, &c.,

S. McDOWELL.

FARMERS, DIGNIFY YOUR PROFESSION.

"But no one knows

How oats, peas, beans, and barley grows."

[OLD SONG.]

MR. EDITOR.—Having been silent a long time, by way of variety, I will endeavor to do something for your columns—I do not know what it will be, but we shall see when we get through.

For some thousands of years, the husbandman has been putting seed into the earth, and weeding and turing the soil, and anxiously watching the result. He has been trying to pry into the arena or secrets of nature. The strongest motives—self-preservation, duty, and even pride, have actuated him. His calling is the foundation on which civilized society rests, and he is conscious of it. Is he, then, the foremost man in society? does he fill the high places? does he have the largest share of honors? Nothing of this. He is still "the hewer of wood and carrier of water" for the rest of mankind. He sees combinations forming all around him to clutch the profits of his toil, and he does not—perhaps cannot—resist. Is this his lot by an inexorable fate? If so, he must submit; he cannot help it.—While others dance, he must pay the piper; while others sing, he cannot sing again in answer. But is this necessarily so, and is there no remedy? The human mind is expansive and progressive. Look to the other departments of human labor: Mechanics build bridges, steamboats, railroads and palaces; spin textile materials, and weave them into all kinds of fabrics, and, when finished, dye them with a thousand hues. Chemistry and other sciences have lent them their aid, and they have received it. They have not turned away, or given them a cold and listless attention. They have paid them in honors, they have paid them in material substance.

But the farmer turns away. He will not prove the value of their suggestions by a practical test—by trying them fairly, and reporting success or failure. No; he is, in his own conceit, too wise for that.—He says, “no one knows how oats, peas, beans, and barley grows.” “You can’t tell me”—and sings it, too.

It must be confessed, the old song is too nearly true. While all other callings are advancing, agriculture stands nearly still. It is doubtful whether, in practical agriculture, we have advanced far ahead of the Romans, two thousand years ago. In fact, I fear we do not equal them in practical knowledge; and I am sure we do not attach the importance to the calling, nor dignify it as they did. Then Virgil, the greatest and sweetest of poets, sung its praises; Cicero, the orator and writer, par excellence, delighted to do it honor; Cincinnatus, the dictator, left the plow and his farm, to assume the supreme command, and after having been honored with a triumphant entry into Rome, as her savior, did not hesitate to return to his farm. They did not look upon the professions of law and medicine, or a clerkship in a store, as positions higher, and more dignified, than that of the farmer. They did not think the pursuit of agriculture disqualified the citizen from holding offices of honor and trust, nor degrade it by giving a preference to men engaged in the professions.

Farmers and planters, would you dignify your calling? Would you see it honored and prosperous? Imitate the Romans. Do not degrade yourself by making a low estimate of your calling. Do not consider scientific knowledge incompatible with your business. Do not suppose there is no call for knowledge and trained intellect in the management of the farm. Be assured that what chemistry and other sciences have done for mechanics, she will do for you. Do not turn away from her suggestions, but give them a fair trial. Everything is proved by well-conducted experiment—experiment is the test; “try all things, and hold fast to that which is good.” Build up an agricultural college, and prepare your sons, not for the professions, clerkships, &c., but to be intelligent farmers. Send a due proportion of farmers to your Legislature, and give them a fair share of the offices of profit. Show thus that you do not regard them as an inferior caste. If you will do all this, knowledge will abound, science will unfold her secret stores, and we may yet understand “how oats, peas, beans, and barley grows.”

FRANKLIN.

KEEP YOUR CATTLE COMFORTABLE.—E. Leving, of Chester county, urges the necessity of keeping your cattle comfortable throughout the inclement weather, that it more than pays directly in diminishing the amount of food consumed by the cattle. When the animal heat is protected, a much smaller amount of food is consumed.—*Whig*.

MARK THIS!—Every husbandman should carefully read and digest matters connected with his business—his success being as dependent upon a full knowledge of its principles and details as is that of the lawyer or physician, with a knowledge of the science of law and physic.

From the Southern Agriculturist.

PLANT A TREE.

Plant! plant!! plant!!! Three times have we written down the word, in order to impress it upon the mind of the reader. God plants over the fair face of the world. The sprouting acorn, the winged seeds of the pine, and the maple, and the ash, the bright red berries of the dog-wood, the holly and the hawthorn, the blue clusters from the evergreen cedar, and the pearly fruit of the mistletoe, high up in the old oak-top, all find a spot as a birth-bed, in which to take root and flourish. Some grow in the mellow mould, where shade and moisture protect and invigorate their tenderness—some, with the pitying spirit of an angel’s guardianship, seek their resting-places where man has wrought all his ruin, on the bare bosom of the earth, and strive to hide her naked deformity by outspreading their evergreen arms—some cling with their viscid coverings to the rough bark of ancient trees, as if they wished to add newer and greener chaplets to their decaying crowns—some seek the crevices of the barren rocks, and, creeping up ruined walls, bind together the fissures gnawed by the cankered tooth of time, in their tender embraces—all obey those laws of vegetable creation, which are ever active in renewing what waste, and heedless inconsiderateness, and prodigal destruction, have so ruthlessly ravaged. Go, then, lover of nature, to the scathed hill-top, once crowned with the brawn of a mighty forest kingdom, and plant a clustering knot of oaks and cedars. Go to the sun-scorched brook, as it glides noiselessly, like molten lead, through your fields, and protect its bright waters by the friendly shade of graceful maples and wide-spreading beeches. Go to the roadside, and people those monotonous plantation lines with the walnut, the red-fruited mulberry, and the maronia—their shade will gladden the heart of the traveler—their fruit will cause unborn children to bless

“The hand that planted these old trees.”

Add living monuments, and multiply them upon the earth. It was a beautiful custom, that, when the betrothed planted each a tree, standing side by side, through years that come, their branches interlocked—their flowers kissed each other, and keeping vigils of love through storm and through sunshine—they remained living sentinels over that affection which never dies. We once knew two of earth’s better spirits, gentle in their natures, lovely in their angelic semblance, bewitching in their beauty, and thus they planted their affections, side by side, in front of the old homestead—those emblem-cedars grew, and when the fair hands which had planted them were twining wreaths with the cherubim around the altars of the blessed, they still stood flourishing over the decay of the past. But the old homestead has passed into the hands of strangers, the beautiful lesson taught by those trees has been forgotten, and to make visible the glaringness of modern improvement, they, too, like their sweet emblem-spirits, are numbered amongst the things that once were upon this earth.

And again, when a child is born a birth-day tree should be planted. We know an elm which marks the natal hour of a matron in a neighboring village,

and we never pass that early-budding tree without thanking the honored father who taught us a lesson when he set its roots in the mellow soil before his door.

The hot, sweltering walls of our cities call for trees—trees to feed upon the vapors which spring from over-peopled quarters, and convert them into healthy-breathing atmosphere. The shade of trees is more genial and grateful to the pent-up dwellers of cities, than it is to most of those who ramble in sylvan groves, during the free and unrestrained years of a life in the country. Let those, then, who are forced to dwell in the busy marts of the world, be blessed by shade—shade in the streets, shade in capacious parks and pleasure-grounds. God made trees enough, so that every human being could revel in their shade. The tawney savage seeks his leafy home, under the Titans of this Western world—the sons of the desert bless Allah for the refreshing shades of the graceful palms, and the white man, who claims to be civilized, alone evinces a thoughtless spirit of tree-struction. For him there is no bound or limit, and the whim of a moment is frequently gratified at the expense of centuries of beautiful forest growth.

Is that new era coming, when we are to be planters instead of ravagers? Will the few examples of ornamental landscape adornment and improvement be copied and become working texts to the millions? Are we to hear of forest plantations to be reared upon our old fields? Are the glaring eye-straining white houses of the land, to be soon hidden by graceful forest-trees, such as abound within the reach of every cultivator of the soil? Is our country to be made picturesque and lovely by the grouping of the elegant specimens which are the pride of our forests around our homesteads? Are we at last to become a nation with common sense? We have often almost worshipped the glorious avenues of live-oaks—beautiful in their mourning drapery of solemn moss, which add such distinct charms to the lower sections of our State. We have admired the virgin-flowery magnolia, and ask, why is it not made welcome to every home in the State? The oak tribe, embracing nearly half a hundred varieties, and the lofty tulip-trees, and the graceful elms, and ever-green holly, and the cedar and the pine, all afford much characteristic beauty to the true lover of nature. There is still a lower fringe, of smaller trees and shrubs, upon the bosom of the earth, which, interspersed with these, add bizarre ornaments to the grouped subjects of the forest. But when we write of these, we have brought to our mind's eye a picture, pen-painted by Willis, which, striking upon the chords of the heart, through a vision of the satisfactory and beautiful, will cause all who read it to love the trees, which a sense of duty to coming ages has caused them to cluster as enduring friends around them. For the benefit of such, we extract from his "Letters from Under a Bridge," a Poet's planting of a tree:

"As I look out from under the bridge, I see an Oriole sitting upon a dog-wood tree of my planting. His song drew my eye from the paper. I find it difficult, now, not to take to myself the whole glory of tree, song, and plumage. By an easy delusion,

I fancy he would not have come, but for the beauty of the tree, and that his song says as much, in bird-recitative. I go back to one rainy day of April, when, hunting for maple-saplings, I stopped under that graceful tree, in a sort of Island jungle, and wondered what grew so fair that was so unfamiliar, yet with a bark like the plumage of the penciled pheasant. The limbs grew curiously. A lance-like stem, and, at regular distance, a cluster of radiating branches, like a long cane thrust through inverted parasols. I set to work with spade and pick, took it home on my shoulder, and set it out by Glenmary brook, and there it stands to-day, in the full glory of its leaves, having just shed the white blossoms with which it kept holiday in June. Now the tree would have leaved and flowered, and the Oriole, in black and gold, might perchance have swung and sung on the slender branch, which is still tilting with his effort in that last cadenza. But the fair picture it makes to my eye, and the delicious music in my ear, seem to me no less of my own making and awaking. Is it the same tree, flowering unseen in the woods, or transplanted into a circle of human love and care, making a part of a woman's home, and thought of and admired whenever she comes out from her cottage, with a blessing on the perfume and verdure? Is it the same bird wasting his song in the thicket, or singing to me, with my whole mind afloat on his music, and my eyes fastened to his glittering breast? So it is the same block of marble, unmoved in the caves of Peutelicus, or brought forth and wrought under the sculptor's chisel, yet the sculptor is allowed to create. Sing on, my bright Oriole! Spread to the breeze your desiring finger, my flowering tree! Like the player upon the organ, I take your glory to myself; though, like the hallelujah that burns under his fingers, your beauty and music worship God."

From the Southern Cultivator.

THE STUDY OF MANURES.

A late number of the *Sandersville Georgian* makes the following statements:

"There has been quite an extensive outlay among our Hancock planters, for guano to apply to cotton, the past season; one gentleman expended the handsome sum of seven thousand dollars, for this single fertilizer alone. Last year it paid well, it seems; this year, it pays over the left shoulder. The guanoed cotton has suffered more with the rust than any other. We still hold to what we have heretofore enunciated, that the purchase of guano, two years hence, will be much smaller than now. Purchased in small quantities, and applied judiciously, to particular classes of lands, in moderate quantities, and especially to Winter crops, we think it will pay, then, a half-dozen years together; but on Summer crops, a decided failure of our crop, in three or four years, takes off all the profits.

"Last Fall we applied one hundred and eighty-five pounds of guano, to an acre of wheat, at a cost of \$7.40. The wheat grew off finely, outstripped the rest of the field, and ran up nearly a foot higher; but the manure seemed nearly spent, and made but a small head. The result was, just about enough overplus to save us from loss—leaving the land, in

our opinion, poorer in salts than the surrounding acres, for the growth of grass and weeds is not more luxuriant than in the rest of the field. We took off from that acre about twelve hundred pounds more than we put on of valuable salts, which, in our humble opinion, is obliged to tell in a series of years."

It by no means follows, that, if one removes twelve hundred pounds of wheat from an acre a year, (no matter for what length of time,) more than he applies in manure, his soil must be impoverished by the operation. Yet, if he uses only Peruvian guano, bone dust, or "ammoniated super-phosphate of lime," the final exhaustion of the cultivated land, so treated, may be reasonably expected. If guano, and the phosphate of lime, were perfect fertilizers, they would equally enrich the soil forever, precisely as good stable manure is known to do; but they are special and partial manures, which furnish to growing crops only a part of their necessary mineral food. Now, as a part of a thing can never be equal to the whole, the commercial fertilizers named, are essentially defective for the due nourishment of all agricultural plants in all soils. It is true, they will often hit, and give a good immediate return; but this is poor evidence of their value.

The live stock of a farm subsist on the vegetable products of the land, and, therefore, their excrements are precisely adapted, by nature, to give back to the soil those elements of plants which it furnishes and parts with in their growth. The sea-birds, whose excrements form guano, subsist not on the seeds of land plants, but on flesh and bone of fish and other marine animals. Their excrements, therefore, are rich in bone earth, and rich in nitrogen, (two important elements of fertility,) but poor in potash, soda and magnesia. Nearly one-half of the ash of the seeds of wheat, corn and cotton, (our greatest staples,) is made up of the two ingredients, potash and magnesia. As guano fails to supply these constituents to the crops named, the soil must furnish them; and when from the long use of super-phosphate of lime or guano, one has exhausted the potash and magnesia in his old fields, their sterility is far more hopeless and forbidding than it would have been, had a wise system of tillage and husbandry been earlier adopted. In a word, if commercial and special manures are used at all, it should be with a view to the permanent improvement of a landed estate—not to rob it of those costly alkalis, without which no crop can be grown.

The Patent Office Reports have done, and are still doing, great injury to the farming interest of the whole country, by scattering broad-cast over it exaggerated statements, in favor of new things and fancy manures. Speaking of "Columbian, or Bird Island Guano," in the report for 1854, page 95, Mr. Browne says: "From careful analysis, it has been ascertained that this substance is, by far, the richest source of phosphoric acid for the farmer, yet discovered, as it contains eighty-four per cent. of dry super-phosphate of lime." On page 97, in the same article, in describing the general features of all guanoes, Mr. B. says, "they invariably contain feathers and comminuted shells; water, of course; organic matter, always; crystalized gypsum, never; carbonate of lime, commonly; phosphate of lime, always;

super-phosphate, never; and nitrogen or ammonia, invariably."

It is obvious that both of the statements in regard to the super-phosphate of lime, cannot be true; while the farmers of the country, who read this official document, are left wholly in the dark, whether either statement is true or false.

In summing up the general merits of guano, in the last paragraph on the subject, the reader is told that "Peruvian guano is, unquestionably, the best possible manure for all plants that require manure at all, provided the soil is kept open by digging in leaves, vegetable rubbish, &c., from time to time."

We should not notice errors like the above, although widely circulated at the public expense, did we not know that they foster the annual expenditure of millions of dollars, for special and defective manures, which, instead of improving the farming lands of the United States, will leave them worse than they now are, and tend to bring both agricultural books and agricultural science, into disrepute with the people. These books must adhere, at all times, to the truth, if they would have and perpetuate a good name. The false and pernicious teachings of books and of journalism are likely to prove the greatest curse of the age in which we live.

The economical production and wise use of manures on the farm are in themselves matters of great importance; but the difficulty lies in persuading cultivators of the soil to study the subject as a science. It is this opposition to careful and patient study which throws them into the hands of quacks and sharpers.

So far as agricultural plants are able to obtain their aliment from the surrounding atmosphere, and from water, they need no food in the shape of applied manure. On most river bottoms, water supplies mainly, if not entirely, all the elements of fertility, not furnished by atmospheric gases. Hence, the critical investigation of the solvent powers, and movements of water, over the surface of the ground, and through all the upper strata of the earth's crust, can alone give one a just conception of the principal sources of plant food, and of the prolonged fruitfulness of arated fields. It is the duty of the farmer to husband every fertilizing element in his soil; for such elements are, in fact, his best and cheapest manures. To do this with skill and the highest success, he must learn to see things precisely as God has made them. By cultivating his acquaintance with the laws of nature in reference to the annual growth of agricultural plants, the good husbandman becomes not only a wise man, but a sound philosopher. Whether he plows, plants, rears and breeds stock, or cultivates fruit alone, all his operations will be governed by fixed principles, dependent not on tradition, but the heaven-created relation of things. To produce manure one needs a critical knowledge of the relative value of each element that enters into its most perfect and complete aggregate. Not many of those who manufacture manure for sale, nor of those who purchase and use the same, possess this useful information. The whole business is very much like the uncertain steps of one blind man leading another through the devious course of a narrow and perilous path. Science alone can open the eyes of both parties and

* See Patent Office Report, 1857. page 14. where it is (speaking of Guano & other concentrated manures) "when their immediate effects are over, will generally leave the soil in poorer condition than it was in before they were applied"

enable them to see their way clearly. To the farmer, the manufacturer, and the merchant, an increase of knowledge is the one thing needful.—Each should understand better the wants of the other, as well as his own professional duties. Let the manufacturer and merchant give the farmer a cheaper and better manure than he can make at home, if they can. On the other hand, let the owner and cultivator of the soil give his best thoughts to the consideration of the ways and means at his command for enriching his farm, and supplying the merchant and manufacturer with the pabulum on which they subsist, with a large and satisfactory profit to himself. Within his reach, bountiful Nature has placed her inexhaustible resources; and a small increase of knowledge will enable the farmer to use these with equal honor to his high calling, and benefit to mankind at large.

SHOEING OF THE HORSE.

The observation, that “we often transpose the order of our labors,” reminds me of a mode adopted in the shoeing of the horse, which I once witnessed, and which is, I believe, of importance sufficient to deserve notice in the pages of your valuable and very interesting work. It occurred at the town of Croydon, near London, which is known as the centre of the Stag-hunt, so well attended by the whole country around, and especially by the high-bred bloods of London; and where may be seen a field of the best horses in the whole world—many of them worth their five or seven thousand dollars.

As I once passed through this town, one of my horses' shoes became loose, and I went to the shop of a smith, named Lovelace, to get it fastened: the shoe was nearly new, and had become loose in consequence of the nails having drawn out of the hoof, although they had been clinched in the manner universally practiced. The smith remarked that all the other shoes were loose, and would soon drop off, when I requested him to take them off and replace them; and then did I perceive the different mode which he adopted for fixing them, which I will here detail. As fast as he drove the nails, he merely bent the points down to the hoof, without, as is customary, twisting them with the pincers; these he then *drove home*, clinching them against a heavy pair of pincers, which were not made very sharp; and after this had been very carefully done, he twisted off each nail as close as possible to the hoof; the pincers being dull, the nail would hold, so as to get a perfect *twist round* before it separated. These twists were then beaten close into the hoof, and filed smooth, but not deep, or with the view to rasp off the twist of the nail. “Oh, ho!” said I, “I have learnt a lesson in horse-shoeing.” “Yes,” said he, “and a valuable one; if I were ever to lose a single shoe in a long day's hunt, I should have to shut up my shop; my business is to shoe horses belonging to the hunt, and the loss of a shoe would be the probable ruin of a horse worth, perhaps, a thousand pounds; but I never am fearful of such an accident.” “Simply, because you drive home and clinch the nails before you twist them off,” said I. “Yes,” replied he, “by which I secure a *rivet*, as well as a *clinch*.” The thing

was as clear as the light of day, and I have several times endeavored to make our shoeing-smiths understand it, but they cannot see the advantage it would be to *themselves*, and guess, therefore, *it would never do in these parts*; but if my brother farmers cannot see how it works with half an eye, and have not the resolution to get it put into practice, they ought to see the shoes drop from the feet of their horses daily, as I was once accustomed to do. Now, let any one take up an old horse-shoe at any of the smiths' shops on the road, and examine the *clinch* of the nails which have drawn out of the hoof, and he will soon perceive how the thing operates. In short, if the nails are driven home before twisting off, and the *rivet*, formed by the *twist*, be not afterwards removed by the rasp, I should be glad to be told how the shoe is to come off at all, unless by first cutting out the twist.—*London Field*.

GERMAN AGRICULTURE.

Each German has his house, his orchard, his road-side trees, so laden with fruit, that if he did not carefully prop up and tie together, and, in many places, hold the boughs together with wooden clamps, they would be torn asunder by their own weight. He has his corn plot, his plot of mangel-wurtzel, for hay, for potatoes, for hemp, &c. He is his own master, and he, therefore, and every branch of his family, have the strongest motive for constant exertion. You see the effect of this in his industry and his economy.

In Germany nothing is lost. The produce of the trees and the cows is carried to market—much fruit is dried for Winter use. You see it lying in the sun to dry. You see strings of them hanging from their chamber windows in the sun. The cows are kept up for the greater part of the year, and every green thing is collected for them. Every little nook where the grass grows, by road-side and river, and brook, is carefully cut with the sickle, and carried home on the heads of the women and children in baskets, or tied in large cloths. Nothing of any kind that can possibly be made of use is lost—weeds, nettles, nay, the very goose-grass which covers waste places, is cut up and taken for the cows. You see the little children standing in the streets of the villages, in the streams which generally run down them, busy washing these weeds before they are given to the cattle.

They carefully collect the leaves of the marsh-grass, carefully cut their potato-tops for them, and even, if other things fail, gather green leaves from the woodlands. One cannot help thinking continually of the enormous waste of such things in England—of the vast quantities of grass on banks, by road-sides, in the openings of plantations, in lanes, in church-yards, where grass, from year to year, springs and dies, but which, if carefully cut, would maintain many thousand cows for the poor.

To pursue still further this subject of German economy: The very cuttings of the vines are dried and preserved for Winter fodder. The tops and refuse of hemp serve as bedding for the cows—nay, even the rough stalks of the poppies, after the heads have been gathered for oil, are saved, and all these are converted into manure for the land. When

these are not sufficient, the children are sent into the woods to gather moss, and all our readers familiar with Germany, will remember to have seen them coming homeward with large bundles of this on their heads. In Autumn, the falling leaves are gathered and stocked for the same purpose. The fir-cones, which, with us, lie and rot in the woods, are carefully collected and sold for lighting fires.

In short, the economy and care of the German peasants are an example to all Europe. They have for years, nay, ages, been doing that, as it regards agricultural management, to which the British public is but just now beginning to open its eyes.—Time, also, is as carefully economised as everything else. They are early risers, as may well be conceived, when the children (many of whom come from a considerable distance) are in school at six in the morning. As they tend their cattle or their swine, the knitting never ceases; and hence the quantities of stockings and other household things which they accumulate are astonishing.—*Howitt*

—♦—
From the Country Gentleman.

QUANTITY AND VALUE OF THE MANURE OF CATTLE.

We have found the following remarks in the report of a recent discussion at the meeting of the London Farmers' Club, England:

The gentleman who opened the discussion, Mr. Baker, is reported to have said that he had found, on investigation, that a cow feeding on 100 lbs. of grass, gave 71 lbs. of solid and liquid deposit. An ox would produce $1\frac{1}{2}$ cwt. while feeding on turnip or mangel-wurzel, with 24 to 28 lbs. of solid straw daily; or, in all, about 150 lbs. of solid and liquid manure would be produced by an ox daily. (This, we presume, is true only of an ox of very large size, and weighing about 2000 lbs.) An ox, if kept feeding continually on turnips, grain, and hay, in the ordinary mode, would produce in the seven months of Winter about twelve tons of manure; and, if foddered in Summer, about seven tons more. Thus a large ox would produce, altogether, about nineteen tons in the year. In feeding in boxes, an ox of average weight, it was said, would produce about eleven cubic yards of manure in four months, or thirty-three cubic yards if kept constantly in a box for the whole year.

In reference to the value of manures from farm stock, it was remarked that horses' was much superior to that from oxen, and that from oxen superior to that from cows, and that from old or full-grown animals far superior to that from young animals. A cow, in feeding, extracts a larger quantity of the nutritive qualities of food than an ox, because food passes more rapidly into the form of milk than that of muscle, or flesh and fat. Again, nearly all the food consumed by full-grown animals goes to supply the natural waste of the system; whereas much of that consumed by younger ones is absorbed in the formation of additions to the bones, flesh and fat, and this is the reason why the richest manure is produced by animals already fat and full-grown.

In the feeding of horses it has been found, said Mr. Baker, that this animal produced, in solid and


liquid deposits, taken together, three-fourths in weight of what it ate and drank. A well-fed horse would give $9\frac{1}{2}$ tons of solid and liquid manure per annum; and if to this were added about $2\frac{1}{2}$ tons of straw, or other litter, the whole amount made by a horse, in a stable, in the course of a year might be estimated at twelve tons.


In our former paper the two following results were obtained from collating a variety of observations made by different individuals: 1. That an average sized cow, or one fed chiefly on hay, and allowed water freely, will make about two and a half pounds of solid manure for each pound of hay, or its equivalent, consumed; or, allowing one-fifth for difference between it and in the usual state of dryness, about two pounds for each pound of hay consumed. 2. That the value of the manure made by a medium sized cow, in the course of a year, would be, according to the usual modes of estimating ammonia, potash, and phosphoric acid, equal to between \$20 and \$23, or a little over \$10 in the course of the six months of Winter.

A comparison of the somewhat loose estimates which we have quoted, with the results which we have obtained as to *quantity*, from collating several observations of the highest degree of accuracy and reliability, will furnish additional grounds of confidence in the conclusions at which we arrived.—In making any estimates based on these conclusions, as to the *quantity* of manure made by animals fed in stables, or at distilleries, during the Winter, it should be recollected that our conclusions refer to medium sized animals—cows or cattle rather under than over the weight of 1,000 lbs.—If the application is to be made to the case of large oxen, from 1,400 to 2,000 lbs., a corresponding allowance must be made, according to the gross weight and the greater quantity of food consumed.

As it may seem to many that the estimate given in our former article, as to the *value* of the total deposits, solid and liquid, of a medium sized cow or ox, during the course of a year, must be too high, we wish to remind such of the fact that, according to the usual modes of managing manures, far more than half its value is dissipated by exposure to rain, sun and wind, while the liquid portion is seldom saved at all. As manures are usually managed, there is little wonder that some should think them hardly worth hauling and spreading. The virtue has gone out of them.

Then, again, it should be remembered, in estimating the value of manures, that much, very much, depends on the nature of the food consumed. The more nitrogen there is in the food, the more ammonia will there be in the manure. A cow or ox fed on straw, poor hay, and no grain, will yield manure of much less value than the one fed on richer food, with oil-cake, &c.

—♦—
 A heart full of love and human sympathy always looks out through the window of a cheerful face, and speaks to you in a gentle tone of voice.

—♦—
 Our most perfect emotions are like birds of Paradise, which, if they once fall to the earth, can seldom rise again.

From the Vermont Stock Journal.
BRITTLE HOOFS.

Very many horses which are confined much in the stables, are troubled with brittle hoofs. The crust of the hoof seems unable to withstand the least blow without breaking, and in some cases it is almost impossible to keep on a shoe—the driving of the nails often splitting open the hoof.

This complaint is entirely the result of improper treatment, and is unknown to the horse in the wild state. It is owing, mainly, to too close confinement upon a hard, dry floor, want of sufficient exercise, and high feed. In a state of nature, the hoofs of the horse are often wet, and absorb a great deal of moisture from contact with the damp earth. This absorption of moisture, as was wisely ordained, is indispensably necessary to the healthy development of the hoof, and it cannot be long kept dry without injury.

Want of exercise and high feeding are also injurious to the feet, as well as to the general health.—Exercise is necessary to promote a vigorous circulation in the limbs and feet, and the want of it predisposes the animal to all kinds of diseases of these important organs. High feeding, combined with want of exercise, is often the cause of many diseases, the tendency being to promote congestion and inflammatory action. Many valuable horses are foundered in this way, while the owner never for a moment mistrusts the real difficulty.

If your horse's hoofs are inclined to be hard and brittle, put him at once upon a floor of loose earth, and see that it be kept constantly damp, but not wet. His stall should be six or eight feet wide, so that he can move about a little. If the soil is very loose, a pail of water sprinkled on the floor, after the bedding has been removed, every morning, will be sufficient. If possible, it is better to turn him into a damp pasture, after taking off his shoes.

If the hoofs are so brittle that the nails split them in driving, you will do well to attend personally to the shoeing. The nails should be as small as possible, and the shoe light. When the shoe is fitted, have the smith mark the places for the nails, and then bore with a small gimlet about one-third of the distance through; there will then be no difficulty in driving the nails without breaking the hoof. If you are obliged to use your horse upon a dry road, you will find it of great service to pack the feet with tow, and pour a little water on them two or three times during the day. Some recommend oiling the hoofs, and this may be of service when properly performed, but it requires much judgement to do it at the proper time. If the foot is moist, oiling tends to prevent the escape of the moisture—but if the foot is dry, the effect of the oiling will be to make it worse, by preventing the natural absorption of moisture.

If you observe carefully these simple directions, you will seldom have any difficulty with brittle feet.

There is, however, one important exception to the course of treatment recommended above, and that is, in cases where the hoofs are not only brittle, but are thin or flat. It is very difficult to do anything with such feet, and if your horse is in other respects very valuable, you had better consult a veterinary surgeon.

SHELTERING MANURES.


It may seem superfluous to some of our readers to recall attention to the importance of sheltering and saving what all admit is so essential, in this region, at least, to the prosperity of the farmer.

But, while the trade in guano is becoming each year a more and more important branch of commerce, and while fortunes are annually made in the cities by those who collect or manufacture fertilizers for the country, scores of our otherwise frugal farmers still suffer the floods to descend upon the piles that have accumulated at their own doors, and seem to chuckle at the thought that what is carried off by Winter rains won't have to be hauled off in the Spring! There is, in this particular, a criminal wastefulness among us that merits the severest reprehension.

Let him who doubts it make a tour of observation through the adjoining county of Herkimer, where many cattle abound, and where much good cheese is made. He will find, in a large proportion of cases, that the stalls in the cow-houses are so arranged that the excrement must need be thrown out under the eaves. Here, exposed to all weather, it undergoes the various processes of drenching and drying, freezing and thawing, until all that is soluble, which, of course, includes all that is valuable, is lost by evaporation, or carried to nooks, corners, and ditches, where it only serves to nourish the growth of obnoxious weeds. During the Autumn rains, and in Spring-time, cattle wallow, and men and milk-maids walk through it; it is washed into the wells to be imbibed as a beverage, and tracked into the houses, to the great discomfiture of the women-folk. In fact, its presence is anywhere and everywhere, except where it should be. Thus, a substance that might be transmuted into ingots of gold, is suffered to become a perpetual nuisance, prejudicial to health, and until habit has made it endurable, intolerably offensive to the senses.

This condition of things which we deplore is not the result of ignorance. Every man who has knowledge enough of farming to discriminate between a scythe-snath and a hoe-handle knows that every ounce of manure has an intrinsic value, and that its value must necessarily be impaired by long and constant exposure to sun, wind and rain. No, this wanton waste of what should be hoarded with miserly care, comes—we are sorry to say it—but it all comes from sheer laziness.

Where but little stock is kept, a Winter-day's work and an expenditure for material, so insignificant as not to be worth computing, are all that is needed to do the job. An enclosure of slabs around the heap, and a roofing of the same, of old boards, bark, or thatch—where permanency is not sought for—will do far better than nothing. And on dairy farms, should the requisite protection require an outlay of a hundred dollars, which it need not, this amount thus expended would prove far more remunerative than if invested in bank, railroad, or additional neat stock.

—♦—
 Hives, in which swarms of bees of the previous year have died, should be kept clean and dry, and out of the way of mice, for the purpose of hiving new swarms in them.

The Farmer and Planter.

COLUMBIA, S. C., FEBRUARY, 1859.

OUR EXCUSES AND INTENTIONS.

We have had great difficulties to contend with, in getting out our January and February numbers. Our list of exchanges, as yet, is meagre, and we have been forced to pick up our selections where we happened to light on them. They are not all as appropriate as we could desire, but are the best we could cull. Serious illness, too, in the family of our Agricultural editor, as well as an opthalmic attack, which forbade intellectual labor, has prevented his pen from doing its pleasant duty. We hope he will soon be guiding the feathered king of his competent thoughts, and that by next month our corps of promised writers will step forth to his assistance, and the *Farmer and Planter* will rapidly become an entirely original domestic journal. For the editorials and selections of the Agricultural department, we have pressed into service the ready pen of an old friend, who has kindly promised, whenever his leisure will permit, to write for us; and his editorial articles will always be marked with a (*) star, although he will not permit us to announce him as a *Star Editor*. We sincerely hope that the thousands of clever writers in the South, who have valuable Agricultural, Mechanical, Horticultural, and scientific information at their command, will put their reflections in shape, and scatter the good seed abroad, through our columns. A journal like ours promotes most desirable objects, and the union of the useful and intellectual is always a pleasant theme with the conscientious journalist. He makes his journal the reflex of the people who surround him, and the age in which he lives. We intend, with proper assistance, to make the *Farmer and Planter* such a journal. It shall be the rural chronicle of its patrons and the readers amongst whom it circulates. It will tell their characteristics, as well as their progress, their tastes, and their necessities—the moral and physical condition of the people and the soil—and will endeavor to paint, in colors of vivid truth, the tendencies and destinies of those domestic institutions, so dear to the conservative, Constitution-loving population of the South. Socially, it shall be a monitor to guard against the encroachments of vice and degradation, in every shape. By the fireside, its tone shall be above suspicion, and it shall be our aim to make it a welcome visitor of propriety and decorum, inculcating sound morals and maxims. In progressive improvement, it shall be a free and frank exponent

of what is really valuable and interesting to the agricultural and horticultural reader; and, whilst it will never pander to the self-interest of any man or clique, it will always be open to free and fair discussion—when penned devoid of personality. We go for the good of the South—for her prosperity and permanence, as the ruling agricultural power of the globe—and if we can advance these great interests, facilitate and make more profitable the operations of our industrial classes, then will we consider our endeavors as having in some wise compensated us for the efforts we are making. To do this, we invoke the aid of all “good men and true,” and hope that the call will be promptly and efficiently answered.

PUBLISHER.

OUR ILLUSTRATED COVER AND VIGNETTE.

The patrons of the *Farmer and Planter* will be pleased with the handsome dress in which we have arrayed it. Our cover is a beautiful illustrative specimen of art. The base, a view of our State Fair Ground, with correct delineations of the various buildings in the foreground, and the life-like crowd which throngs it on the second Tuesday of November of each year, was ambrotyped for us by that clever artist, Mr. J. T. ZEALY, of our city. The Machinery Hall—easily recognized by the chimney—the Grand Centre Hall, and the Agricultural Hall, with the neat and tasty Office at the entrance, are buildings in every way worthy of the liberality of the people of Columbia, who bestowed them on the State Society. Surmounting this base, is the beautiful figure of CERES, holding the torch of industry in her right hand, and shielding her bosom with gleanings of golden grain; whilst from her feet fall cornucopias, from which are scattered the fruits and flowers of our favored clime—all fit emblems of the objects and interests which engage our labors. In the *vignette* is seen the cotton-bale, the heavily laden fruit-tree, the clustering vine, and twining rose; the broad alluvial fields of our lower country, the snug farm-house, the industrious negro, the beautiful palmetto, the patient oxen, and the summits of our mountains—illustrative of the diversity of our interests, and showing the great extent and variety of soil, climate, and productions of our beloved State.

These beautiful designs were drawn for us by our townsman, Mr. T. C. VEAL, and reflect the skill of his pencil, in un mistakeable lines of beauty, both in design and drawing. For the Engraving, we are indebted to the establishment of Messrs. L. JOHNSON & Co., Philadelphia.

These adornments are but the beginning of what we intend to do, in order to make the *Farmer and Planter* inferior to no publication of its kind in the United States.

HINTS FOR THE MONTH.

The care with which the crop will be cultivated, very much depends upon the operations of this month. We have had three months in succession of rain. During the month of November, 3 1-10 inches of rain fell; during December, 6 1-10 inches; and during January, 3 7-10 inches; making an aggregate of 12 9-10 inches in three months. The earth is saturated with water, and the plow has done but little for us. No time should be lost—but do not (because your anxious neighbor's gee-haw salutes your ear in the early morn) get impatient, and begin to plow before you are ready. Overhaul your plow-stocks and gear; see that all is in good trim; have a good supply of plows in the shop, of all patterns, ready; a few extra plow-staples, heel-screws, false coulter, handles and backbands, for an emergency: something is always breaking in the beginning.

As soon as the soil will crumble, as it turns off the share, start every plow you can, and be sure you do your work well. Plow deep and close. Oats should be sown as soon as possible. Don't believe in the too common opinion, that any sort of plowing will do for oats, but sow one bushel of seed per acre, and plow the ground as deeply and thoroughly as possible. The oat is a very valuable grain, and although an exhausting crop, it will pay better on some soils than any other, and it always comes in good season. The Egyptian we prefer to all other varieties we have tried.

Rich patches may be now profitably sown in Barley; it will come in very well, as an early bite for both horse and cow.

Clover should now be sown—in misty weather, if possible. When up, give it a top-dressing of plaster. The soil should be tenacious and rich for clover.—

If you have not had your fence-corners, ditch-banks, and branches cleaned out, it is high time.—All streams should now have obstructions cleared out of their channel, so that the spring rains may have a full sweep. There will be no time after the crop is planted to attend to such things.

Manure should have been hauled out by this time; if not, do it as soon as convenient, and put it under the soil as quick as possible. Take care of your cotton seed, it is the best of manure. During wet days re-litter your lots and stables, re-set fences, repair gates, houses, &c. All grade ditching and horizontalizing should be disposed of as early as possible. These are matters about which every planter must be governed by the tenacity of his soil, and the irregularity of its surface.

Stock should be especially cared for during this month, or the March winds will tell fearfully. If you have not permanent shelters, you should have

temporary ones to protect them from the wind and rain. Put salt and ashes in the troughs. Have an eye to the sheep and lambs, as well as the dogs, and see that the hogs come well out of the winter, if you wish to be independent of the Kentuckian and Tennessean. Barley patches and clover patches will be found wonderful helps now in bringing your pigs and calves out of their winter coat.

Remember the old adage, that “a stitch in time saves nine,” and that a “cotton planter never has time to fix up.”

COWS AND BUTTER—A DELIGHTFUL THEME.

“Now is the winter of our discontent made glorious by”—Golden Butter! Good lady reader, we address this article to you. Your lord of the plantation knows but little of the elements brought into play, to produce good, palatable, golden butter in winter-time. He thinks the gleanings of the corn-field—“rich,” he says, “in husks and pea-vines”—(but frost-bitten and devoid of nutrition) with a few basketfulls of shucks at night, thrown broadcast in the muddy, sloppy, cow-pen, with a few cotton-seed, is fare good enough for milk cows. Yes, and cows thus fed produce butter good enough for such husbands. With such poor fare—no shelter but the skies of heaven, chilled alike by rain and dew—the desolate cow stands humped up in the corner of a fence, and boldly defies the elements, by turning up her nose at the wind. Yet she is expected to give a bountiful supply of foaming milk, and to furnish the grateful lubricator to warm biscuit and hot rolls, at the breakfast-table. No wonder such cows have to be penned in a corner—in fact, “surrounded,” as the Dutch soldier said, when he captured three Tories in a flax-patch—before she yields the small quantity which she fondly hopes to save for her long-haired, starving calf, which stands bleating on the other side of the fence. Such treatment and such cows never give “golden butter.” A milk cow should not only be well housed—have a comfortable bed under her—but should be most carefully and regularly fed. In winter she should be furnished with such food as will supply the deficiency of the green herbage, upon which she thrives and fattened in summer. She should, in addition to this, have as much good hay, shucks, corn-tops, and straw, as she cares to eat. If these articles of food are alternated, so much the better. Her allowance of grain must be ample; and the finer this is ground, the more benefit will it confer on the animal. We have found corn and cob, ground fine, good food for milk cows—especially if it is wetted thoroughly with water, and allowed to soak for six hours.—Wheat bran and fine corn meal, are also of great value as food for this kind of stock. Oats and barley meal are alike valuable. But, in the South, the

pea is acknowledged to be the great churn-filler.—It is the very best food we can give a milk cow; and she will thrive, grow fat, and yield rich returns on this food, with very little roughness. The city man will find the cow-pea the cheapest cereal he can use. Cotton-seed, when properly fed, is the next best food we know, and, in point of economy, is the cheapest. This our Yankee neighbors are just beginning to find out. We see cotton-seed “meal” and cotton-seed “cake” are now advertised by the most respectable Agricultural warehouses in Boston, and are claimed to be richer in nutrition than the famous “linseed cake,” so noted as cattle-food in England.

“Prof. JOHNSON, of New Haven, who has made analyses of both, says: ‘On comparing the analysis with the linseed cake, it will be seen that the cotton-seed cake is much richer in oil and albuminous matter than the linseed cake, and, consequently, less quantity will therefore be required. Three pounds of this cotton-seed cake are equivalent to four of the linseed cake of average quality.’

“Dr. C. T. JACKSON says: ‘The composition of the cotton-seed oil cake proves it to be good food for cattle, and an excellent fertilizer.’”

The great fault of most persons who feed cotton-seed here is, that they *feed too much*. Two quarts a day is as much as is required to support a cow. They should be cooked, and a liberal allowance of bran or corn and cob meal mingled with them, before fed. It is the common practice to give a cow half a peck, twice a day; but this will be discontinued when the cow-owner reflects that he thus administers half a gallon of oil of a most purgative character. Many a lean cow is galloped off in this way—and with the best intentions of benefitting, she is physicked to death. The boiling of the seeds of short staple cotton, in a great measure, destroys the inconvenience of the lint attached to them, and softens the shell both of it and of the Sea-Island variety, which latter are smooth and very hard. Feed cotton-seed in the mode prescribed—two quarts once a day for grown cattle, and a quart for calves, and they will prove a great promoter, both of milk and the condition of animals. We have found a field of ruta-bagas the greatest aid in our cow-feeding this winter. A bushel of these roots, with cotton-seed, meal, and long food at will, gives us glorious golden butter. We have planted ten acres of ruta-bagas on stubble land, after wheat, and have never been paid better by any crop we ever grew. Our cows join in this laudation, on the daily arrival of the turnip-cart at the cow-house.—We prepare our long food, partly by cutting up the corn-tops, on a horse-power cutter, which reduces two thousand bushels any rainy day. The hay, straw, and shucks, we feed whole, as it is proper

they should have, each day, some long food in a natural state, to carry on the process of rumination.—We have sometimes found, that when we fed entirely on very short cut food, and meal with cereals in slops, our cows “*lost the cud*”—which was simply a cessation from rumination, and, becoming weakly, declined in consequence thereof. We invariably moisten our cut food, from six to twelve hours before feeding. This renders the hard portions soft, and it is much better relished than when fed entirely dry. It furnishes them a portion of the water, which is as necessary for their health as is good food; and receiving it thus gradually, it is more beneficial than if forced to drink an unnatural amount all at once, when fed on very dry food.—Cleanliness is the first and last law of the cow-house. Without this, disease and ill-condition will creep into the best-fed herd. We stall and feed eighteen cows in one stable, and do not use a single partition. Our plan is, a trough running the entire length of the stable, with a division every four and a half feet, to separate the food of each animal. In front of each space we plant a well-peeled sassafras or post-oak pole, three inches in diameter, around which is placed a ring, with a Yankee cow-tic, made of two pieces of trace-chain, one end with a ring, and the other with a “T.” The pole is well secured in the ground and to the floor above, and with this simple fixture each cow is securely fastened up, so that she is safe in the enjoyment of her allowance of food, and free from the annoyance of the horns of her neighbors. A small boy of twelve years old, ties up these cows without help—after they have been handled by stronger hands a few days. They soon learn their places, and it is hard work to make them stand in any other portion of the stable, after they become accustomed to proper management in this particular. We strew the floor of the stable with leaves, litter, and straw daily, and the cleanings are, with our system of feeding, the richest contributions to the manure-pile.

Now, my good lady, you may think that we have forgotten the caption of this rambling article; but we assure you we felt so much interest in the elements of butter, that we could not refrain from giving you a dash of our turnip-patch, which naturally led us to the place the turnips go to—the cow-house—and now for what they help to make. Good sweet cream, or rich sweet milk, a day old in winter, kept at the proper temperature for elaborating the cream from cows fed and housed as we have directed, if churned at a temperature of 65°, in a properly-constructed churn, will not fail to give golden butter fit for an American sovereign to eat. After churning, reduce it to 45°, and the less touched by lady fingers the better. It must be worked cool, either

with or without water, (as that is a debateable question) until all the buttermilk, or sour particles, is pressed out of the butyraceous mass, and then the smallest quantity of salt—just enough to suit the taste, and no more—must be added. This must be pure, and an ounce to six or eight pounds is all sufficient. Salt is frequently added to butter, under the mistaken notion that it will preserve it. *This is a mistake. Butter is not preserved by salt*, and this is a fact which can be chemically proved, and, also, by example. It will keep as long and as sweet as olive oil, without salt, if the cassein of the milk is carefully excluded. It is this substance which spoils butter, and unless free from it, no art can keep it sweet. Butter should be packed closely in vessels of clean inodorous wood, stone or glass pots, so as to exclude the air; and if it could be kept perfectly excluded from the air, there is no reason why it should not preserve its flavor and sweetness forever.

What think you, kind lady reader, of this churning of ours—suggested as it was, by a golden ball of well made, properly handled butter, which crowned our table at eventide's meal, on BURNS' natal day—that BURNS who sang so sweetly of the fair herds of his own Ayr. It is writ for a purpose, and, when read, its mission will begin. *

COTTON.

Our cousins over the water seem to have an unfortunate proclivity to go into fits about twice a year, on the subject of the Supply of Cotton, and the imminent danger of their interests falling into our keeping. A cautious observer may readily perceive that these attacks, violent as they seem to be, are periodical, premeditated, and easily managed. About the time the planter is getting ready to pitch his crop, meetings are got up to show him that the supply will not be equal to the demand; and no sooner is the first bloom, or boll, or big picking, published, than the press begins to teem with accounts of an overwhelming supply. The speculators on this side of the water, play into the hands of their fellows on the other side; the press, greedy after every tit-bit of news, publishes, as truth, the statements of travelling correspondents, paid to collect the right sort of information.

The sceptre, however, is rapidly departing from them. The planters are out of debt—our enemies have drawn a line about the cotton region—there is but little spirit of speculation—labor is scarce, and wages high; and the planter, feeling perfectly secure, holds on to his cotton-balos, and sells when it suits his own convenience. He has forgotten all about the old bugga-boo of over-production, and can sleep soundly over the prospect of a three-and-a-half-million crop.

In truth, the world is rapidly embracing the delusion, as the Yankees say, that cotton is king—that it is the great peace-maker—that the world is more dependent upon it than it is upon the “rest of mankind”—that there are thousands of uses to which it may yet be converted—that it may enter into combination with silk, and wool, and flax, cheapening them, and forcing them into thousands of channels hitherto unknown—that the greater the supply the greater the demand; for human ingenuity, in the improvement of machinery, and cheapening the manufacture, will keep ahead of over-production, and force cotton shirts and breeches to be worn by thousands in China, India, and Africa, who are now too poor to indulge in such extravagance.

We commend to the careful perusal of our readers, two articles in the present number, on “Cotton in India,” and the “Supply of Cotton.” They come from a quarter entitled to the highest consideration, and deserve to be “laid up for a rainy day.”

UP TO THE MARK, LIKE A MAN.

[We refer the following to a self-constituted committee of one hundred friends of the *Farmer and Planter*, and hope they will report favorably by the time our March number is issued.—PUBLISHER.]

MR. EDITOR: In a number of the *Farmer and Planter*, last year, I proposed to be one of any number who would prove my desire to insure the success of the journal by my works. You will please forward the ten numbers for 1859 to the following individuals, as I think it the better policy to diffuse the benefits as much as possible; and I have no doubt but the recipients will not only enjoy the perusal, but take pleasure in extending the circulation of your journal.

With the best wishes of the new year, believe me,
Truly yours,
BROOMSEDGE.

OUR RECEPTION.

It is with feelings of pride and gratification that we acknowledge the cordial reception given to our first issue of the New Series of the *Farmer and Planter*, by almost all our Exchanges in this State. The high encomiums passed upon our journal, by such competent judges and intelligent gentlemen as comprise the corps editorial of South Carolina, are highly appreciated by all concerned in the enterprise, and will stimulate us to maintain the high position in which those gentlemen have so generously placed us. True, there are a *few*—a very few—who have shown a disposition to “damn with faint praise;” but we are consoled with the reflection that such papers but seldom find beauty or worth in any journal, unless it can display a “highly colored fashion plate,” or is filled with foreign pictures.

ESSAY ON THE CULTIVATION OF TOBACCO.

The first step in the process of tobacco culture is to make provision for an abundant supply of plants. Tobacco seed are very small, and the plants, when they first spring from the ground, grow very slowly, and would soon be smothered by weeds, if not carefully guarded against. The places selected for plant beds should be such as would not be likely to produce many weeds. New ground, or that which has been long set in grass, would be best for this purpose. To guard still further against weeds, and to ensure a thrifty growth of plants, it is essential that the place in which the seed are to be sown should be burnt. A slight burning with straw or other light material will not be sufficient. A good coat of brush laid upon the ground intended to be used for a plant-bed, and arranged so closely as to make it burn readily, serves best for the purpose. Care must be taken, also, before laying on the brush, to rake all trash from the ground, so that the heat may readily destroy the seeds of any weeds which may have been deposited there. New ground is always to be preferred for plant-beds, and brush as the material for burning the ground. But if the tobacco planter have no new ground, then he must substitute grass land in its stead, and this should be well burned, by having a range of logs (those which are seasoned answer best) laid along one edge of the ground intended for a plant-bed, and heaped up sufficiently to make them burn readily. These must be set on fire, and after burning the ground which they cover sufficiently, they must be moved, by means of hooks, to the adjacent ground not yet burnt; and so on, in succession, until the entire space intended for a plant bed is burnt. If one set of logs is not sufficient to burn a space as large as will be necessary, others must be added so as to enlarge the space, or they may be burnt at different places, as may be most convenient.

Where sod ground is intended to be used, it would be advantageous to have the sod lightly skinned off with sharp hoes, before the space is burnt over.

After the ground is burnt, it must stand sufficiently long to cool, and then the ashes should be carefully removed. The ground should now be dug up with hoes, to the depth of two or three inches, and so as to pulverize it as much as possible; and should be well raked with an iron-tooth rake, so as to break up the soil into the most minute parts. It will now be ready for sowing the seed. It is important that this operation should be as regular as possible; and care should be taken to put the proper quantity of seed upon the ground. If sowed too thick, the plants will be so much crowded as to injure their growth. If sowed too thin, a deficiency of plants may be the consequence. A common silver table-spoonful of seed will be sufficient for fifty square yards. More than that quantity should not be sowed on that space of ground. But if the ground prepared be abundant, the plants would grow more thrifty by sowing a spoonful of seed on seventy or eighty square yards. The seed allotted for a particular bed should be put into a vessel half filled with fine mould or earth, and stirred so thoroughly as to cause the seed to be equally distributed in all its parts. It should now be separated into two equal divisions, and the plant bed having been divided into convenient lands for sowing, one portion should be sowed as equally as possible in one direction, and the other portion in the same bed, in the opposite direction. The plant

bed should now be well raked with an iron-tooth rake, both ways, and should then be well trodden by the feet of men or boys, so as to render the loose soil firm and compact. The bed should be thinly covered over with brush, to keep it moist and to protect the plants from frost. Plant beds should be prepared and sown as early in February as the weather will admit; though it will be in good time if sown any time in that month.

Tobacco requires a rich soil, and that which is new or nearly so, answers best. Next to ground which has been recently cleared, lands which have been long in grass, especially if pastured by sheep, answer best for tobacco. In preparing ground for tobacco, great care should be taken to plow it deep, and pulverize it completely. Grass land intended for tobacco, should always be plowed the previous Fall. And it is better that all kinds of land intended for that purpose, should be plowed in time to have the benefit of the previous Winter frosts. It should be kept light and free from weeds, by repeated plowings, till near the time of planting. It should then be laid off into ridges, by a single horse plow, (to prevent the ridges from being trodden by the off horse,) from three to three and a half feet from centre to centre, according to the kind of tobacco which is intended to be planted. The ground should be crossed at the same distance, by a shovel plow or one with a double mould-board. The ground will now be in a condition, requiring nothing more to be done to prepare for the planting, but to cut off the centre of the square or ridge with a broad hoe. This last operation should be performed when the plants are of sufficient size for setting, and should be made only so many at a time as there will be plants to fill, the first season that happens. Plants can only be set after a rain, and much care should be taken in this operation, for if plants are well set they will grow quickly, but if badly set they will be kept back some time, and many hills will require to be replanted.—This will cause much additional labor and render the crop irregular as to the time of ripening. When the crop is planted, its cultivation must be carefully attended to. The first thing to be done is to see that the cut-worms do not destroy the young plants.—These must be sought after and destroyed. The plants must be kept free from weeds. In this operation both the plow and hoe should be used, until the plants become too large to use the former without breaking the leaves. During the last plowing, tobacco should be plowed only during the heat of the day, when the leaves will have *wilted*, and will not easily break.

Tobacco is very subject to be injured by the horn-worm. This insect is very destructive, and if not destroyed, will ruin the crop. The utmost care is, therefore, required from an early period of its growth, to save the tobacco crop. From the time the horn-worm makes its appearance, the crop should be gone over once a week till it is cut. *Topping* and *priming* are next to be attended to. The latter consists in breaking off the leaves next to the ground, which, to the number of four or five, are of no value. The number of leaves to which tobacco should be topped, varies according to the kind of tobacco raised, and the season of topping. The *first* topping will always admit of a greater number of leaves being left; and, in proportion as the season advances, fewer leaves should be left. The heavier kinds of tobacco are generally topped early in the season to twelve leaves,

then to ten, and still later to eight. The lighter kinds of tobacco are topped to a greater number of leaves. The above rule is only applicable to a rich soil. If the soil is light, the topping should be regulated accordingly, and fewer leaves left.

Suckering is a much more tedious operation. Every plant requires to be twice suckered before it is ready for cutting. The first suckers are of quick growth, and should be removed before they become large, otherwise they will not only injure the growth of the plants, but will sometimes break off the leaves in removing them.

Tobacco is usually planted from the middle of May to the last of June. The cutting season usually commences about the middle of August, and is rarely finished until late in September. Between the planting and cutting of tobacco, the labor of attending to it is light, but very tedious. It requires more hands than any other crop, for the same number of acres; but weak hands and children can assist, and do much of the work. When it begins to ripen, stouter hands are required, though children may still aid in the subsequent operations. A little practice will enable the planter to distinguish, very readily, the ripe from the green plants. At the first cutting the former must be selected and cut, leaving the others to become riper. When tobacco is ripe the leaves become spotted with a greenish-yellow color, and the leaves are so thick and ridged that by folding and pressing them gently between the thumb and finger, they will break or crack. But a little experience will enable the planter to determine which plants are ripe by *sight* alone. Tobacco must be split while standing; and such hands as can readily distinguish between the ripe and green plants should be employed in the splitting process. The most convenient knife for splitting tobacco is in form somewhat like a broad chisel, except that the blade should be very thin. It should be three and a half inches wide, and of the same length, having attached to it a thin spear or shank, to be inserted in a handle about a foot long, having a cross piece on the top, to be held by the hand. After the spear is inserted in the handle, the latter should be shaved flat on two sides, to prevent the end of the handle next the spear from striking against the top of the tobacco stalk as the knife is run down. With this instrument a skilful operator can split the standing plants with great rapidity. They should not be split nearer to the ground than six inches. The cutter may follow immediately after the splitter, or at any convenient time afterwards. A common hemp hook is the best instrument for cutting tobacco. The cutting season is a critical time for the tobacco crop. It is subject to a variety of casualties; and without particular care, is liable to sustain great and irreparable injury. It is subject to be *bruised* in handling, to be *sun-burned*, and to be greatly injured by *heating* if suffered to lie too long in large heaps. Each of these will most materially injure the crop, and they must all be guarded against with the utmost vigilance.—The first is the most difficult to be guarded against, when tobacco is cut in very warm weather. After it is cut, it *must* lie long enough to fall or *wilt*, so as to become sufficiently pliant to handle without *breaking* or *bruising* the leaves. The hotter the weather the more difficult it is to accomplish this object without exposing the plants to the deteriorating effects of being *sun-burned*. It is surprising how quickly this takes place, when tobacco is exposed to the me-

ridian rays of the sun, in the month of August, or early in September. The parts of the leaves which are *sun-burned* turn white, and soon become dry and crisp; and when cured, assume a green color. The parts thus affected are completely ruined, having lost all the qualities of good tobacco. To guard against this casualty, when tobacco is cut early in the season the operation should be performed in the morning or so late in the evening that the sun will not have power enough to injure it. Cutting, both in the morning and evening, may be practiced as convenience may dictate, and may be managed as follows: The planter may commence cutting in the morning, taking care to cut only so much as he can secure before the sun has acquired sufficient power to injure it. When the cutting is completed and the plants have fallen sufficiently, he should commence piling it in heaps with the butts towards the sun, taking care to handle the plants gently, holding them by the butts, and avoiding any pressure upon the leaves. By handling them thus, and laying them as lightly as possible in heaps, this process may be performed before the tobacco has completely fallen. The heaping should always commence with the plants first cut, so that they may as nearly as practicable, be exposed to the sun's rays an equal portion of time, or in equal degree, and should so progress till the whole is heaped. The stems of the tobacco are the last parts that *wilt*.—Being large and ridged, these require more sun to make them fall, and hence the necessity of placing the butts towards the sun when heaping tobacco.—Being thus placed, the stems continue to be affected by the sun, while the plants are lying in heaps.—The heaping of tobacco in some degree protects it from being *sun-burned*, but the uncovered leaves are, of course, unprotected. Hence the necessity of hauling the tobacco to the place of hanging it, as soon as possible after it has fallen sufficiently to admit of this being done without bruising or breaking off the leaves. Sleds are the most convenient vehicles for transporting tobacco to the scaffold or house where it is to be hung, if near at hand. These should have smooth plank on the bottom, to prevent the leaves of the tobacco from being torn or bruised. There should be no standards in the sleds, and the tobacco should be laid on in two courses, the tails lapped and butts out on each side. When unloaded, the butts should all lie towards the sun, unless the hanging is performed in the shade of a house or trees. These precautions are all for the purpose of preventing the tobacco from being *sun-burned*; if the cutting takes place late in the season, or when the weather is cool, they will not be necessary.

Planters who are largely engaged in the culture of tobacco, will be under the necessity of raising it at a considerable distance from the place of housing it. In that case sleds will not be convenient for transporting it, and it would be a much better plan to have a wagon, coupled so as to hold a very long body, and sufficiently high to hang the tobacco, after being put on sticks, across the body. The sticks should be filled with the appropriate number of plants, in the field where it grew, and put at once into the wagon, pressing them as close together as possible without bruising the leaves. This will protect the plants from becoming *sun-burned*, and when the wagon arrives at the place of housing it, the tobacco may at once be transferred to the place where it is to be cured. It would be most convenient to have two wagons, so that one may be filled in the field

while the other is hauling and discharging its load and returning. So, also, if there be hands enough, the smaller ones may be heaping the tobacco while others are engaged in putting it on sticks, and conveying it to the place of housing. If the tobacco house be so constructed as to admit the wagons to pass through the centre, additional facilities will be furnished for transferring the tobacco to the place where it is to be cured.

Tobacco plants may be split during the heat of the day, without injury. It is only liable to be *sun-burned* after it is cut. And hence the splitting process may progress, while part of the hands are engaged in hanging that which was cut in the morning. When the afternoon has so far progressed that tobacco may safely be cut without the risk of sun-burning, (which is usually about four or five o'clock in August, and somewhat earlier in September,) the cutting process should commence, and be completed as soon as possible, so as to give time for the plants to fall sufficiently to be handled the same evening, or the next day, before the sun has attained sufficient power to injure them. The first cutting of the afternoon in the early part of the season, can usually be hauled and hung the same evening. That part of it which has not fallen sufficiently to be handled without bruising or breaking, should be suffered to lie in the field, without heaping, till the next day.

It is usual, when there is not time to hang all the tobacco during the same evening it is cut, to let a part of it lie over till morning, to be hung while the dew is drying off that in the field. This may be done to advantage if hauled on sleds, provided care be taken to prevent it from heating during the night. If suffered to lie in large heaps, it will be greatly injured in the course of one night. To guard against this casualty, it should be spread in long rows not more than three or four plants deep, when the weather is very warm. In cool weather the danger of heating is not so great. A little experience will teach the tobacco planter to guard against the casualty of which I have been speaking. It is very important that this should be done, as it is completely ruinous to so much of the tobacco as may become heated to a high degree, as it will do, if suffered to lie in large heaps over night.

There are two modes of treating tobacco when it is cut; one is to hang it on scaffolds, exposed to the weather; the other is to hang it at once in suitable houses.

The former method must, of necessity, be resorted to where there is a scarcity of house-room. By hanging some time on a scaffold, the tobacco commences curing, and can be stowed much closer in houses than it can be, with safety, when first cut; but it is subject to serious disadvantages. Those parts which are exposed to the sun are liable to be sun-burned, and much of it may, therefore, be injured on the scaffold. Another injury, and a most material one, is, that if suffered to remain on the scaffold till the leaves begin to cure, they are liable to be injured by the dews which fall every night; and still more by a rain, if one should happen to fall. If the tobacco is *housed* from the scaffold before it begins to cure, not much is gained in point of room, when stowed in the tobacco-house. If suffered to hang on the scaffold till partly cured, it may be much injured by rains and dews.

The safest way, therefore, is to put it in houses, or under sheds, as soon as it is cut. But here, again,

care must be taken to avoid another casualty—that of being *house-burned*. It is stated in the *Farmer's Guide*, page 265, that if it is intended “to cure by fire, the tobacco is carried immediately from the field to the house, hung on sticks, as before described, and these sticks crowded as close together on the tier as they can possibly be, so as to exclude all air from the tobacco. It remains in this situation until the leaves of the plants become yellow, or of the color of hickory leaves just before they fall. This will generally happen in four or five days, when the sticks must be spread and placed at their proper distances in the house.” There never was a greater error than that contained in the above extract. Tobacco thus housed, would be completely ruined long before the five days should have elapsed. If intended to be cured without fire, the house should be as open as possible for the free admission of air.—The sticks on which the tobacco is hung should be placed from eight to twelve inches apart, according to the size of the tobacco, so that the air could circulate freely between the ranges of sticks. It should be continued in this open order until the tobacco is partially cured, when it may be rehung in much closer order, so as to make room for the later cutting. If hung in open sheds, with tight roofs, so much the better, so that the rain is prevented from beating in on the tobacco, which may be done by setting up fence-rails or rough plank against the open sides of the shed.

If intended to be cured by fire, the house should be rendered as tight as possible, in all parts, except the roof, through which the smoke must escape.—But instead of being crowded together, as recommended in the extract given above, it should have space enough to prevent the plants on the different sticks from *pressing hard* against each other, after the tobacco has completely fallen. Instead of suffering the tobacco to hang four or five days before fire is put under it, the house should be filled *as soon as possible*, and fire put under it *immediately*, to prevent the danger of house-burning. For the first few days the fire should be moderate, till the *edges* of the leaves turn of a yellow color. The fires should then be gradually raised, and the house kept sufficiently warm to cure the tobacco in a few days. In making kite-foot tobacco, the rule is, I believe, that the tobacco, stalk and all, must be cured in forty-eight hours from the time the fires are *raised*, which, as I have already remarked, must be when the leaves *begin* to turn yellow around their edges. After thus commencing to change color, the entire leaf very soon assumes a beautiful yellow hue, and the object is to cure it before it turns to a nutmeg-brown. If the curing is not *very speedy*, it will, or a great part of it, change to the latter color before the operation is completed.

The next thing to be done, after the tobacco is housed and cured, is *stripping*. This must be delayed till the *stem* as well as the leaf of the tobacco is thoroughly cured. Stripping can only be performed when tobacco is in such high *ease* as to render the stems perfectly pliable, or at least such a portion of them as will supply a sufficient quantity of *tying leaves*—that is, leaves to tie the tobacco in *hands*. To perform this operation neatly, the stem of the leaf with which the hand is tied, should be soft and pliant. As seasons for stripping are precarious, whenever tobacco, after being sufficiently cured, comes into *ease*, a quantity for future strip-

ping should be taken down, and packed in close bulk, with the tails in the centre and the butts of the stalks out. This bulk should be enclosed by the walls of the house, on two or three sides, and plank on the other, and should be well stuffed all around between the enclosure and butts, so as to exclude the air.—Thus packed away, tobacco will remain in *case* for a long time, but care must be taken not to pack it down when in too damp order, otherwise it will go through a heat, and be greatly injured, unless it be stripped out in the course of a few days. If put down in proper order, it may be stripped out at leisure, provided it is not packed in bulk before the weather has become cool—say November or December. When stripped and tied in hands, it must be put in bulk, lapping the tails in the middle and leaving the heads all on the outside of the bulk, so that they can become thoroughly dry. If not in too *high order* when put in bulk, as above directed, it may be suffered to remain till February, when it should be hung on sticks, the hands as close as they can be conveniently placed to each other without pressing them together, and hung in the tobacco-house, leaving the sticks so far apart as to admit the air to circulate between them. In this situation the tobacco will become thoroughly dry in a few days. It must be left hanging until a rain shall again bring it *in case*—it will be observed that the *leaf*, in contradistinction to the *stem*, will first come *in case*, whilst the stem will be found still dry and brittle. This is precisely the order in which tobacco should be, when it is to be finally bulked down for market or *prising* in hogsheads.

It should now be put down in a very large bulk, which may include the planter's entire crop. The number of courses may be six, eight, or any larger number, and the whole should be enclosed by the walls of the house and plank, and closely surrounded and covered with soft straw, so as perfectly to exclude the air. In this condition it may be kept for any length of time, and will be ready at all times for hauling to market in the *hand* or *prising*. One precaution only will be necessary: When the cover of the bulk is taken off for the purpose of taking out a part of the tobacco for *prising* or sale, the entire course, or courses, on the top, should be taken off smoothly, and the cover carefully replaced. This is necessary to prevent the top of the bulk from becoming too dry. When *prising* in the summer, some elder-bushes may be spread over the bulk to keep the tobacco damp. Tobacco prepared as herein directed, may be kept any number of years in bulk, or may be transferred to hogsheads and kept for any length of time, not only without injury, but will constantly improve by age.

It should be remarked that, to make tobacco of a very superior quality, great care should be taken when the stripping process is going on, to separate all the injured or defective leaves from the prime tobacco. To this end, every plant should pass through the hands of a good judge of tobacco, who should *cull* out all the injured and defective leaves, which should be kept and sold separately. The balance of the leaves may be stripped and tied by small hands, who are not skilled in the quality of tobacco. As many persons should be employed in *culling* as may be necessary to furnish employment to all the less skillful hands. Sometimes, especially in kite-foot tobacco, three different qualities should be made.

I have now gone through the entire process of to-

bacco culture, in which I have endeavored to include everything which can be of *practical* use to the tobacco planter; and have gone as much into detail as will enable him, with a little practice and the exercise of a sound judgment, to understand and apply the whole process to the best advantage.

It is usual to plant tobacco on our rich Kentucky soil, for several years in succession, on the same ground. Tobacco is an exhausting crop, and ought not, too frequently, to be planted on the same land. Experience will soon show when the crop should be changed. When it becomes necessary to do so, tobacco should be followed by a wheat crop, and the wheat sowed thickly with clover the following spring. The clover crop should be continued for at least two or three years, and then should have a coat of manure in the fall, and be ploughed in, and suffered to lie till spring, when it would again be in good condition for tobacco.

A. BEATTY.

FOUL FEET IN SHEEP.

As many farmers are much troubled with foot-rot, or fouds in the feet of their sheep, I would say that, according to my knowledge of the diseased foot, that there is no certainty of curing without a thorough application of the knife. The reason I speak of this is, many attempt a cure by running their sheep through a trough of vitriol or lime.

The first appearance of disease is an irritation between the toes; second, a slight separation commences between the toes and near the back of the hoof. If the proper remedies are applied before any separation takes place, paring the hoof will not be necessary; but if the medicine does not reach the whole of the diseased part it will appear again in a more aggravated form: hence the necessity of following the disease by paring the foot as far as you can find the least sign of the rot. Many say that the remedies applied make their sheep worse. The reason is obvious, from the fact that any remedies to cure the disease have a tendency to harden the hoof, and if the disease is beyond the reach of the medicine, the outside becomes hard, and the disease is still at work in the foot. This will be seen by a continued lameness and inflammation.

Sheep, after doctoring, must in no case be turned back in the same lot until sufficient rains or frosts have cleansed it, as the disease is highly infectious. I will give a receipt for curing foot-rot, which is infallible, if rightly applied:

To 100 sheep take 2 lbs. plug tobacco, boil it in a sufficient quantity of water to get the strength, strain it, then pulverize 6 ounces of blue vitriol, put it in the tobacco, while hot. One quart of the liquid will be sufficient. The stronger the better. When cold add a half tea-cupful of spirits of turpentine; and after paring the foot, apply the liquid with a swab.—*Cor. Medina Gazette.*

CHARCOAL FOR SWINE.—It is not, perhaps, generally known, that one of the best articles that can be given to swine, while in preparation for the tub, is common charcoal. The nutritive properties are so great that they have subsisted on it, without other food, for weeks together. Geese confined so as to deprive them of motion, and fattened on three grains of corn per day, and as much coal as they can devour, have become fattened in eight days. The hog eats voraciously, after a little time, and is never sick while he has a good supply.

Gorticultural and Pomological.

WILLIAM SUMMER, EDITOR.

WORK FOR THE MONTH.

The unfavorable wet weather this season, will make February a busy month for the Gardener.—The principal crop of Peas should now be sown, as the signs of flowering in the Apricot and Peach, is the best index that can be observed for planting Peas. They should be planted in drills from two to three feet apart. The *Daniel O'Rourke* is the best early variety; the *Early Frame* and *Sangster's Early* are also good kinds. There are, however, many choice early kinds, and most seedsmen claim to have a superior variety of their own; but when a choice variety, having the requisite qualities of flavor and productiveness, is once obtained and established, be careful to save your own seed from the first that make their appearance. They may be much improved in this way, and brought to bear earlier than when grown from seed raised in a Northern climate. The *Holland Table Pea* is the best for a succession. All the *Marrowfat* varieties are tender and good; and the *Champion of England*, with its sugary sweetness, is, perhaps, the best of these. The *Clamart* is the latest. We usually plant all our varieties at the same time, and, as they ripen at different periods, give a regular succession. Super-phosphate of lime is one of the best manures for this vegetable.

Irish Potatoes will require the first attention, and should be planted as early as possible. The ground should be well spaded or ploughed, and richly manured with vegetable compost. Guano, ashes, and gypsum we have found to produce fine crops. Stable manures should be avoided, as waxy potatoes are invariably produced when it is used.

Horse-Radish should be planted out. It is easily cultivated, if the ground is made sufficiently rich with stable manure, and deeply trenched. It is propagated by planting the young crowns, and by slips from the roots.

Celery should be sown in rich, mellow ground, in a situation where the plants can be protected. They will be fit to transplant early in Spring, in trenches which require to be properly prepared.

Lettuce.—The *Cos* and *Cabbage Lettuce* constitute the two families, which number many varieties.—When young, the Cabbage varieties are the sweetest, but at full growth this is reversed. The *Early Cabbage*, or *Butterhead*, is one of the best and earliest. The *Royal Cabbage*, or *Drumhead Imperial*, &c., succeeds this, and produces large, firm heads. The best variety, for all purposes, which we have grown is the *Maltese*—tender and sweet. Lettuce thrives

best in a light, rich soil, with a dry subsoil. In poor and tenacious soils, it never attains good size, and runs to seed prematurely. Like most other garden crops, that soil is to be preferred which is rich rather from previous cultivation than from the immediate application of manure. It is of advantage to trench it, and, if it is necessary to apply manure, it should be well decomposed, or in a forward state of decay.

Beans.—A few *Early Valentine Beans* may be put in this month. Plant in drills, so that they may be readily protected from frost, by a cover made of two plank, ten or twelve inches wide, nailed together, to form a covering. They are easily set aside, and the plants can be covered in a few minutes. Next month we will give a list of the best varieties.

Melons.—A rich, light soil is best adapted to the growth of Melons. The soil for *Canteloupes* must be made rich, and properly prepared. A few, for early use, both of *Canteloupes* and *Watermelons*, should be planted this month. The hills should be made rich with good manure. Super-phosphate of lime, or bone-dust, and common salt, are the special manures required. Guano, with a mixture of charcoal and salt, we have found particularly advantageous. Prepare a few boxes, sixteen or eighteen inches square, made of plank ten inches wide, and in the top of this put a pane of glass, ten by twelve inches. Place these over the hills, to secure the plants from frost; and when the danger of frost is over, they will be in a forward state, and by admitting air gradually, will harden, and the box can be removed entirely. They can be advanced a month in this way.

The best early Canteloupe is the *Christiana*. This is a variety with yellow flesh, and very thin rind, and can be had now at all the seed-stores. The green fleshed is also good. The Large Globe *Canteloupe Muskmelon* is the best of the large kinds. In this State, amongst Watermelons, the *Bradford* has no superior, though every neighborhood has some choice varieties. The *Souter*, the *Hale*, and *James Island*, are all celebrated. The best only should be cultivated.

Cucumbers.—A rich, dark loam, is the best for early Cucumbers; but, for this purpose, plant the *Early Bunch Cucumber*, and protect with boxes and glass, as directed for Melons.

Radishes.—To have a good and constant supply, sow the *Early Short Top*, the *Long Red Salmon*, *Red* and *White Turnip*, the *Gray* and *White Summer*, and *Chinese Rose* Radishes in drills, twelve or fourteen inches apart, and thin to three or four inches in the row. They require very rich, deep and well prepared soil, finely pulverized, and if not so, should be made by the addition of sand and vegetable mould.

Turnips.—The *Early Dutch*, or *Strap Leaf*, should be sown.

Pepper.—This is indispensable in our warm climate. The seed should be sown in pans, in a hot-bed, or in boxes, under glass, or in a warm room, and transplant as early in spring as they can be put out. The *Bell* and *Large Sweet Spanish* are used for mangoes and pickling. The *Cayenne* Pepper is a different variety, but grows finely in our climate, and with this precaution produces abundantly, and is used for making pepper-sauce, and, when pulverized, for table use.

Tomatoes.—It is a point of good gardening to have these early: for which purpose, sow the seeds early in pots or boxes, within doors, or sow in a warm spot in the garden, where they can be protected from the cold; as the plants advance, support them with a trellis. The best variety is the *Vegee*—a large, smooth variety of superior quality.

Carrots and Parsnips.—Sow the latter part of this month, as soon as the season will admit. The ground must be deeply dug or trenched, and put in good condition. Apply compost, well decomposed, and super-phosphate of lime, which is excellent manure—a little salt is a valuable addition to these crops. Form the rows sixteen to eighteen inches apart, by drawing up slight ridges; on these sow the seed, covering lightly. Thin the plants out until they stand five or six inches from each other. The *Early Horn* is the best for early use; the *Long Orange* for the general crop; the *Hollow Crown*, or *Smooth Sugar Parsnip*, is most delicately flavored, and principally used for the table.

Salsify is sown and treated in the same manner as Parsnips. It should be sown this month.

Pot Herbs.—There are a variety of aromatic pot herbs which are indispensable to every good garden. Plant out *Marjorum*, *Thyme*, *Sage*, *Savory*. The most of these are perennials, and can be increased by offsets, or parting the roots, and from seed sown in drills, and afterwards transplanted. Seeds of *Coriander*, *Carraway*, *Sweet Marjorum*, *Summer Savory*, should be sown at the proper time; the *Sweet Basil* and *Bene* should be sown later. *Parsley* is one of the most useful herbs in garnishing, and in the use of soups and stews. A good supply should always be at hand: it forms a beautiful edging for the borders in a kitchen garden, and then it will take up but little room.

Roses that have not been pruned, should now receive attention, by cutting out the old wood and shortening in the young shoots to one-third their length, and by adding a dressing of well-decomposed manure and charcoal—either the dust from the forges, or, if convenient, procure it from the Railroad stations. If thus treated, and not smothered

up by other plants growing too near them, they will continue to give abundance of their delightful flowers for years. *Moss Roses* should be planted in a damp, shady border, and very slightly pruned—cutting out decayed branches, and shortening back the shoots very little. Within a few years, the French florists have produced several perpetual Moss Roses, which are a great acquisition—and many other fine perpetual Bourbon and Tea Roses. We will give brief descriptions of these, as they bloom with us this season. Plant Roses and other shrubbery; set out Box Edgings and other border plants.

This is a favorable season for transplanting Evergreens. Enrich the ground with fresh surface mould and rotten leaves from the woods, avoiding the use of animal manures, especially for the *Coniferæ*—such as the Norway Spruce, *Cryptomeria*, or Japan Cedar, Cedar of Lebanon, Deodar Cedar, Pyramidal and other Cypresses. These, with the new *Arbor Vitæ*—Golden and Silver-Edged Hollies—are highly ornamental, and are well adapted to our climate.

THE ORCHARD.

This month is a favorable one to transplant all kinds of fruit-trees. They should now be procured, if it has not been attended to. The Peach will require shortening in, by cutting back one-half the preceding year's growth, and thinning out when too thick, and removing crowded branches.

Grape Vines should be planted by making the trenches deep; and if the soil is clay, it is preferable to throw in stones and other rubbish, to form an underdrain at the bottom. Mix the soil with ashes, vegetable mould, and coarse bone dust, and fill up to within a foot of the surface. Plant the vines—spreading the roots well—and fill in with the same prepared soil and mould. If the vine is trained fan-like to an upright trellis—which we prefer—thin out the useless branches and shorten the vigorous growth back; the small lateral shoots will have to be cut back to one and two eyes. To prune a vine properly, requires some skill and care; and with a little precaution, old vines can be kept in a renewed state for years, producing annually certain and abundant crops. The best varieties are the *Lenoir*, *Herbemont Madeira*, or *Warren*, as it is sometimes called, and the *Catawba*. The *Blands Madeira*, with proper care, succeeds well; also the *Isabella*. The *Scuppernon* is a variety which adapts itself to nearly every soil, and, requiring no pruning, should be extensively planted.

DIFFICULTY.—What is difficulty? Only a word indicating the degree of strength requisite for accomplishing particular objects; a mere notice of the necessity for exertion; a bugbear to children and fools; only a mere stimulus to men.—*Warren*.

NEGLECT OF FAMILY CEMETERIES.

Our last resting-place on earth—the narrow spot where care and anxiety, and toil and trouble, and sin and hope, are all pnt to rest forever—shall we not contemplate it in other lights than as the mere house of clay which heedless and restless humanity so often makes it? It was a beautiful custom, where but few were proprietors of the soil, to consecrate “God’s Acre” around the venerable churches.—There, safe from the footstep of intrusion—from the upheaving swells of progress—from the greedy grasp of gain—loved relics rested in peace. So it is in England, with her parish system of State worship. So it is in Continental Europe—even in Nordland—everywhere, the chnrehyard, with its holy relics, is sacred soil, peopled with the dead, and ornamented and improved by the tasteful culture of the living. But how different in yonng, buoyant, restless America? How different from New England—which has preserved a lingering touch of grave sanctity from the better types of the Old World—is the system of sepulture in the plantation States? Here, every family of comfortable means has its own cemetery. On the plantation from which we write this article, there are *nine* burial grounds, five of which contain the remains of the whites of the families, and four, those of the negroes belonging to the different estates, which have been absorbed and consolidated into one. Eight of these are in a state of neglect, and have been so long years ago. A stray post—the remains of a wooden paling—a tottering tombstone or two—some red mounds—are all the indexes that point to the neglected resting-places of those who opened the forest, and stood in the furrows of life before us. Whilst there is much to blame in the selfish system which prompted our forefathers thus to scatter their dead, we can see much more to censure in the neglect in which the present generation leaves these sacred spots. We may be told that the fault lies not with the present, who have no liability in the matter. But let those who thus speak, reflect that there are stronger duties elained from man than those which are merely compulsory. We think it is Paulling who has so properly uttered the sentiment, that “We are all moralists when we sit upon grave-stones.”

We never contemplate the certainty of Death until he casts his shadow across our pathway—obliterating, forever, the smiles of loved ones, constitnting the sunlight of existence. He is the great antagonist of life; and the cold thought of the tomb, is the skeleton of all festivals. “The dark valley” of his shadow does not tempt ns onward, although it may lead to Paradise. Charles Lamb said that he did not wish to die down in the muddy grave, even with kings and princes for his bed-fellows. But Nature’s

deeree is inexorable, and we only flourish as we fade; and so do flowers and all that is beautiful on earth. Men and grass appear and vanish together, and the myriads of to-day will echo no sounds of life upon the shores of to-morrow.

But all this life-flitting is pregnant of the great instincts of immortality, and finds a holy response in the thinking mind and thoughtful soul. How beautifully does Ion, the death-devoted Greek, when about to yield up his young existence to the sacrifice of fate, respond to Clemanthe, when she asks “if they shall not meet again”:

“I have asked that dreadful question of the hills that look eternal—of the clear streams that flow forever—of the stars, among whose fields of azure my raised spirit hath walked in glory. All were dumb. But while I gaze upon thy living face, I feel that there is something in the love that mantles through its beauty that cannot wholly perish. We shall meet again, Clemanthe.”

Such thoughts crowd the avenues of every heart; such feelings hallow memories beside freshly heaped-up mounds. We all vow better things than we ever perform. But are these reflections carried out? We fear not. If we cannot protect these scattered resting-places from ruin, let us do all we can to preserve them from the intrusion of the plough-share, before which so many have fallen, unnoticed. Let sheltering trees spring up to hide and protect the forsaken mounds. The cedar and the pine, and the clustering vine, are better friends to the dead, than is living man. Then, these silent dwelling-places will be in quiet rest, until that hour cometh, when the sea shall give up its dead, and the desert shall quicken with the hosts that have been swallowed up in its burning sands.

If the injudicious action of the past cannot now be remedied, we should strive, by every means in our power, to adopt such precautions in arranging and preserving those domestic cemeteries now in use, from such neglect in the future. The building of a substantial granite wall, or neat iron fence, is within the reach of all. Make a permanent protection of this kind around the family burying-ground, and then plant memorials that will live and flourish, when men have been long forgotten. For this purpose, the native and acclimated evergreens furnish the most appropriate tree ornaments. The magnolia, with its shining evergreen leaves and white blossoms, plant at the grave of the maiden, who was snatched from earth in her day of loveliness and purity; the willow will shed tears in dew-drops, from its slender, drooping sprays, over the tombs of dead mothers; the strong-armed live-oak, and the sombre-robed cedar of the distant Hymclayas, give room beside the graves of our fathers; the laurel plant ye upon the hero’s tomb; and let

the myrtle and fragrant gardenia, the blushing camellia and odor-laden rose, shed their beauty and perfume upon the graves of "babes and sucklings." Let not the graveyards of the land be spots of horror to the living, but let their beauty invite us to contemplate these last places of abode, with pleasant feelings of satisfactory reliance in the great value of the world's destiny. Give shade and flowers to the now sad acre in which God has planted his human harvest, and his sweet choristers—the music-throated birds—will sing their requiems over long-forgotten graves. The dead will not hear these notes of bird-music, but some sorrowing, living ear, may be charmed by the melody, and bird and tree, and slumbering dead beneath, may teach hopes of a better land, and reliance on God! *

OSAGE ORANGE HEDGES FOR FIELDS.

We have lately received several letters and inquiries, as to the proper mode of managing Osage Orange and Rose Hedges for fields, and take this method of giving as much as we know, so that our readers will be in possession of the few simple facts necessary to plant and grow a hedge. Fencing, in the older States is now becoming dear work, and the number of rails necessary to build our substantial, but unsightly fences, is perfectly astonishing. To build a simple straight fence around twenty acres, without subdivision, requires 4,704 rails; 6,720 will fence forty acres; 13,440 will fence one hundred and sixty acres; 28,880 will fence six hundred and forty acres, or one mile square. These estimates are simply for outside line fences, and when the numerous subdivisions, into which most plantations are laid off, are considered, every planter can easily estimate the cost of fencing to which he is subjected. Fence corners are unsightly, foul, weed-growing spots, and the zig-zag line presented, is not a model of beauty, by any means. A rail fence is perishable—requiring repairing in five years, and renewal in ten. A hedge is substantially enduring, and once formed lasts forever. In the North-West there are regular hedge-growing companies, who prepare the land, furnish and set out the plants, trim and cultivate it for four years, when the hedge is a perfect barrier against bulls, pigs, and other less intrusive and more quiet domestic animals. Their charge is less than twenty-five cents per rod, a year, and they furnish and guarantee a complete barrier in four years, at less than one dollar per rod. At this rate, it would be as cheap to hedge as to build rail fences, especially when we consider the permanence of the former, and the fact, that keeping of it in order would cost, after it was old enough, about as much labor as the annual clearing out of the fence corners. We would suggest to our neighbors of Ohio,

to send us out a company of good hedgers, instead of the hordes of apple-grafters, who spoil many good native horse-apple trees, by the addition of unacclimated Northern varieties, in their incursions amongst the uninitiated. Such a company, with young Osage Orange plants, might do themselves much good, whilst they conferred equal benefit to their patrons; and we do not doubt but that engagements might be made before-hand, which would warrant the venture on their part. The Osage Orange grows here, with a vigor unknown in the North, and, unlike the buckthorn and others of the *Crategas* family, it is totally exempt from parasites, or predatory enemies of any kind, which are injurious to its growth. We believe that here, it would make the same growth in three years, that it would require four years to produce in the North. A great essential in starting an Osage Orange hedge, is to properly prepare the land, and make it rich enough to put forth strong and luxuriant growth. Severe pruning, to ensure a wide base for the hedge, is very necessary. We would recommend the plants to be set in lines two feet distant, and the plants one foot apart in each line, thus:

■ ■ ■ ■ ■ ■ ■
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or, perhaps, a greater distance would in time make a good hedge. A gentleman in the vicinity of Columbia is experimenting, this season, with a mile of Osage Orange hedge; and, whilst he will make a durable barrier, he will, at the same time, give great protection to the birds—so essential, as insect-devourers, to the operations of the plantation, that they should not be considered as unworthy adjuncts and exterminators of these troublesome pests to our most remunerating crops.

The following instructions as to the management of this hedge-plant are from the pen of Mr. BATEMAN, of the *Ohio Cultivator*, who is conversant with the subject: *

TRIMMING THE HEDGE.—One year after planting, the plants will have several shoots each, from three to six feet in height, and these must all be cut off *quite down to the surface of the ground*. (If the growth, from a bad season or other cause, has been quite small, this cutting may be deferred till the following Spring.) Each root will now throw up several strong shoots, and on rich soil, where the plants are vigorous, these shoots should all be cut off about the middle of June, within three inches of the ground, but on ordinary soils the growth will not be so strong as to render the cutting advisable before the next Spring, and the roots are strengthened by allowing the tops to remain when it can as well be done.

The second cutting should be done to within two or three inches of the ground, and here is where most persons have erred heretofore. The shoots are so strong and numerous that the owner thinks it a loss of valuable material to cut it all off so close; but

experience fully proves that to *spare the knife is to spoil the hedge*.

The *third cutting* should be done about the middle of June, (supposing the second was done in Spring,) or as soon as the young shoots are about two feet high. Take a pair of hedge shears or a Dutch sickle, and cut all off even, to within three or four inches of the former cutting, or about six inches from the ground. This will cause a very dense growth of lateral shoots, filling up the space between the plants, and covering the sides with shoots and leaves quite down to the ground; and in no other way than by this midsummer pruning can a perfect foundation be secured. The neglect of this point has been the chief cause of failure in former years.

The *fourth cutting* should be the following Spring, down again to within five or six inches of the former cut; and again in June give the *fifth cutting*, adding only about six inches more to the height, and taking care to give the hedge a proper shape—a wide base at the ground, shortening none but the longest of the lower side branches, and narrowing towards the top, like the roof of a house.

Repeat the trimmings the next Spring and midsummer in the same way, only a little more height may be allowed each time, *if a perfectly close base has been secured*—not otherwise. By the end of the fourth year, if on good soil, the hedge will be able to afford some protection, as well as present a beautiful appearance. In trimming, now, it should be given a handsome conical shape, the base about four feet in width, (afterwards to be increased to five feet,) and narrowing to the top like a sugar-loaf; taking care to clip the sides as well the top evenly at the Spring and midsummer prunings.

After the fifth or sixth year, the growth of the hedge will be much slower, so that one trimming each year will suffice; but this must always be sufficiently close to prevent the hedge from becoming too high and wide. A short brush-scythe is found by most persons a convenient implement for trimming hedges; but some prefer a good sickle, and others use a common corn-cutter, with a straight blade about two feet in length, made quite sharp. With either tool the work can be done quite rapidly after a little practice. They have machines for trimming hedges by horse-power in some parts of Illinois.

COST AND PROFIT OF AN APPLE ORCHARD.—One hundred apple-trees planted on an acre of ground, will cost, on an average, \$25. The land should be kept in a state of cultivation whilst the trees are coming into bearing. About \$25 expended in care and labor, besides the crops taken from the land, will bring them into a bearing state. When an acre of trees is in its prime, it will average 400 bushels per annum, provided the land is kept rich and loose, and the trees well managed. Average price, 66 cents per bushel. Our surplus apples are valuable for all kinds of stock, particularly to Winter store hogs. Sweet apples are worth about as much as potatoes.

GARDENING FOR LADIES.—Make up your *beds* early in the morning; *sew* buttons on your husband's shirts; do not *rake* up any grievances; protect the *young and tender branches* of your family; *plant* a smile of good temper in your face, and carefully *root* out all angry feelings, and expect a good *crop* of happiness.

For the Farmer and Planter.

MANAGEMENT OF THE GRAPE.

MR. EDITOR.—In my last I promised to give you the utility and philosophy of pruning. I feel the more desirous now of doing so, since I read, in one of your preceding issues, some brief directions purporting to emanate from Prof. Mapes, of the *Working Farmer*. Generally speaking, this gentleman is a well-informed editor, and a sure guide on scientific matters connected with agriculture; but it pains me to see these unreliable remarks, which are calculated to do harm to the grape culture.

THE PROPER AND MOST FIT TIME FOR PRUNING.

This is a bone of contention all over France; indeed, all over Europe. There are few departments that have the same period for executing this important operation. All have some supposed good reason for their particular time, or for their particular routine. Opinions are very much divided; but they are reduced to two periods, before or after the frosty season of the particular locality. Pruning early, causes the sap to force and swell the fruit-buds much earlier, and gives a longer period to ripen the fruit, and this is a very great advantage when the climate will admit it, or for localities where the summer is short; but in a variable climate, like that of America generally, the buds would be more frequently exposed to late Spring frosts, and great injury would be the consequence. Late pruning has its ill-effects, too: the wounds not having had time to heal, bleed profusely, and greatly weaken the vine, and shorten its life, and where Summers are short, and where the accumulative heat is less than 6,000° F., the grapes will not ripen to perfection. That is the case in northern regions. The northern limits of France and America, for the culture of the vine in the open fields, are very different. It is at least ten degrees of Latitude more north in France than in Eastern America. No comparison can be instituted between the two countries, or any other. Our experience must be the result of our own observation, in this country, and that even for every locality. Nothing is more deceptive than to reason by analogy on this subject. Ignorant European vine-dressers have done that to perfection. Then we know that old vineyards are slower to swell their buds than young vines: hence the necessity (everything being equal) of pruning these earlier than those more recently planted. The first requires help to hasten its vegetation in the Spring, by early pruning; the second must be kept back, by pruning late, to avoid the destructive effects of Spring frosts. The learned professor would not have been so positive in his directions as when to prune, in a country like America, embracing more than twenty degrees of Latitude, and that of totally different climates, and opposite localities,

had he dreamed, in his vigorous philosophy, that there are so many points to be settled first, and then to be taken into consideration. Alas! my dear professor, stop, hereafter, your ex-professor directions on the vine, for you only make "confusion worse confounded." It is easy to theorize, but you are, I know, a pupil, like myself, of experimental and inductive philosophy. And I must say, that the facts that are to reduce the culture of the vine in America, to simple *formulæ* for a guide, are yet to be collected, and you reside in an exceptional region, on the northern limit of the vine culture in America.

Our Summers at the South are long, at the North short, for the perfect maturity of the grape for making wine; and I question whether, on the eastern side of this continent, above forty degrees of North Latitude, will ever mature grapes for making potable wine. Not so on the western coast—California, for instance—because the vine isothermal line takes a more northern course on the western side of North America. The eastern side has a great draw-back in the influence of the Gulf Stream, and in the variableness that it produces on the temperature east of the Alleghanies, as well as the great quantity of moisture in the air near the seacoast, and which is one principal cause of the rot of our fruit. These extraordinary vicissitudes of our climate have caused MICHAUX, who resided and tried, near Charleston, S. C., to grow grapes, to make a failure, which was entirely ascribed to this great moisture of our seacoast, combined with its high temperature. The great Bosc, even now, who has been appointed by the French Government to throw light on all the topics connected with the culture of the grape-vine and its product, comes to the conclusion that this cause, (too humid an atmosphere) will long retard the successful introduction of the grape-vine into North America. This, also, is wrong; for North America is not all like Charleston, S. C., and it is not all so woody as to be a bar to its profitable culture. Nevertheless, the observations of Mr. Bosc on France, are the best ever published, and if the United States would have a similar appointment, it would be of vital importance for North American Oenology.

You may now begin to perceive how very complex this subject is, even by this brief *expose*; and you will arrive at the natural conclusion, that it is very absurd to publish, in our Southern papers, as a recommendation, Northern observations, even if they be the result of local experience; and how difficult it is to settle, satisfactorily, these mooted points.

The mean temperature of Western South Carolina, say from Columbia to Greenville, at least, and even west to the Mississippi river, is neither too high nor too low Latitude. This belt, including Georgia and

North Carolina, (the western parts,) may be considered the Burgundy of America, as a whole, though many localities compare favorably with the South of France as to its climate. I am now pruning the Scuppernong. I wish you could taste the wine of this grape. (In a word, all my wines have been pronounced excellent, by good judges.)

These few hints must suffice for the present; for I am, just now, very busy in decanting my wine, and preparing the ground for transplanting from my extensive nurseries my rooted vines.

J. TOGNO.

Abbeville C. H., Dec. 1, 1858.

For the Farmer and Planter.

GREAT YIELD OF A GRAPE-VINE.

It is stated in the French papers, that one single stock, at Strasbourg, in France, yielded 1,157 bunches, which produced 157 *litre*, which is equal to about 40 gallons, of wine.

This shows what an old vine in a good position can yield, so far as grapes are concerned. These grapes, however, must have made a poor wine, as all arbor vines will make.

The abundance of grapes yielded by a vineyard is a sure sign that it will produce an inferior wine.—The rule is, all over vine countries: the more abundant the grapes, the more inferior the wine; and, as quality is always preferable to quantity, we ought, therefore, to cause our grape-vines to produce a moderate crop, so that the sap may be rich, the grapes sweet, and highly flavored, and then make with them not only a good wine, but one with a high character.

J. TOGNO.

PUBLISHER AHEAD---PEARS IN FEBRUARY.

In our last number, the Horticultural Editor went into ecstasies about eating luscious Maria Louise Pears on Christmas, and we candidly confess our lips smacked with envy, when we read the article, at the thought of such a luscious treat, at such a time. No doubt our esteemed friend thought he had feasted on the very last Pear of the season, and spoke of it as much to crow over the Publisher and "the rest of mankind" as to "stimulate all laggards;" but it is our turn to crow now, Mr. Editor, for our esteemed townsman, Mr. I. D. MORDECAI, left at our printing-office a specimen of those very delicious Pears, which, although of Royal name, we intend shall "contribute much to the lusciousness of our dessert" on the birth-day anniversary of the great Republican Father of his country. May friend MORDECAI's Pear-Trees always be so prolific as to enable him to bestow a portion of his kind favors upon the Publisher as well as the Editor.—PUBLISHER.

A SHORT CHAPTER ON BABY CLOTHES.

Though not exactly "*Horticultural*," the following is connected so intimately with the "*Nursery business*," and, withal, contains so much good sense and practical suggestion, that we insert it as a real blessing to young and inexperienced mothers. It is from the pen of Mrs. BATEHAM, and we clip it from the *Ohio Cultivator*.—

We want another sisterly talk with you, young mother, so please take up that worrying infant; I know it isn't crying to hurt itself, yet it needs change of position, scenery and exercise, even if it is a quiet child, and you have sowed long enough to claim a little change yourself. We think many a little one, and perhaps your's among the number, would say, if consulted, "give us more care and attention, and fewer fine clothes."

Embroidery and stitching are all very well, if they do not interfere with what is of more consequence. We love to see the little ones look pretty, but if in the meantime they are getting repeatedly into mischief for which they must be punished, or, worse yet, get into bad company, the evil influence of which it may be very difficult to eradicate, the tasteful little garment that caused it will have proved a great injury.

We are astonished to see how large a wardrobe many of you think necessary for an infant. We would have enough, by all means, to give the necessary changes from week to week, but no more; not only to save time, but because most white clothes grow yellow by lying, and moth and mould are no unimportant enemies to be combated. For this last reason, we would also avoid laying by outgrown clothes for a younger one. By a little care and forethought, most things can be so fashioned as not to be outgrown; for instance, when foot-blankets, (pinning blankets) are laid aside, two can be sewed together, and thus be useful as a skirt; when long clothes are discarded, each skirt can be cut across the middle, making two short ones, and, as with the child's growth more changes are needed, this is quite convenient. The first short dresses, too, can easily be so cut that they will be long enough till worn out, and thus each child can have most of its own clothes new, instead of wearing the old ones of its predecessor.

Time could also be gained by cutting the clothes so as to require less labor in making. Dispense, for example, with the separate sleeves, gussets, bands, etc., of the night-dress, and substitute the simple sack, which any one can cut, the cloth of which passes over the shoulders whole, making the garment in a single piece. Length and fullness are no objection, and by drawing it at the neck and wrists with tape, it will look neatly and not be easily outgrown. With a reduction of size, we would make the shirts after the same pattern. Seams should always be dispensed with when practicable, for the child's sake as well as the parent's.

Sack waists, too, are very suitable for children's dresses, and especially skirts. As soon as the bandage is dispensed with, which should be as early as possible, all the skirts should hang from the shoulders, and the waists be very loose.

Simplicity and taste are the most desirable traits in a child's dress. Staring colors and gaudy trimmings should always be avoided, as well as a super-

abundance of ornament of any kind. If colors are used, let them be delicate, and such as will not fade; and, during the Summer, let the children bear as small a burden of clothes as possible. Remove all flannels from them, and keep them cool. Very long infant clothes are not only uncomfortable, but injurious to a child at any season of the year.

Many of our readers will find nothing new or valuable in these rambling suggestions, but others, we trust, will receive hints from them which will enable them to save time for their own mental improvement, and to such we commend them.

CARROTS.

We subjoin an excellent article on the use of carrots as food for horses, from the *N. E. Farmer*. The proper time to sow them, in the South, is the very earliest period when there is no danger from frost. If the young plants do not get a good start before the hot season comes on, they will die. We have often raised good crops, and found all that is claimed for this root, as food, true. The best varieties for field culture are the coarser kinds, whilst the early Orange is better suited for garden culture and table use.

In Great Britain, many of the most successful agriculturists and cattle breeders feed their horses liberally, and, indeed, in some instances, quite exclusively, on roots. The carrot they hold in high estimation for this purpose, and vast quantities are annually raised and consumed. It has been estimated by some writers on domestic economy, that a bushel of carrots is equal to half a bushel of grain; but although this is doubtless a somewhat extravagant appreciation, we have no doubt that three bushels of carrots will prove, in all cases, fully equivalent to one of oats. It was stated, not long since, in one of the papers, that the proprietor of one of the most extensive livery stables in Connecticut "considers carrots the most valuable article of winter feed he has ever raised." Raped, and mixed with chopped straw, or refuse hay, they answer a double purpose of economy, and render the expense of wintering animals far less than it would be were we to employ only English hay and grain. Hogs winter admirably, and even fatten, on these roots.—We advise every farmer who can command a piece of old, well-worked, rich and deep soil, to put in a few square rods and try them. The seed may be sown in this climate as late as the twentieth of June. The ground should be finely pulverized by harrowing, or some other equally efficient disintegrating process, and thoroughly rolled after sowing the seed. Guano and bone dust are efficacious and salutary stimuli for the crop. Ashes, also, and gypsum, have a decidedly favorable and energizing effect. But plenty of good barn manure is best.

APPLE TREES.—A horticulturist of Bohemia has a beautiful plantation of the best sort of apple-trees, which have neither sprung from seeds nor grafting. His plan is to take shoots from the choicest sorts, insert them in a potato, and plunge both into the ground, leaving but an inch or two of the shoot above the surface. The potato nourishes the shoot whilst it pushes out roots, and the shoot gradually springs up and becomes a beautiful tree, bearing the best of fruit, without requiring to be grafted.

Domestic Economy, Recipes, &c.

In consequence of a very important error occurring in the recipe for making Muffins, which we published in our last number, we have inserted it again, revised and corrected.

FOR MAKING MUFFINS.—To one quart of flour add half a teaspoonful of soda and a teaspoonful of cream of tartar. Sift them together; beat two eggs well with a teaspoonful of salt; add a pint of milk, then add the flour. Melt half a tablespoonful of lard, and beat all together for a few minutes; put into your muffin-rings, and bake in a quick oven.

TO COLOR WOOLEN Madder RED.—To every eight pounds of yarn or cloth take four pounds of madder, half a pound of alum, half a pound of cream of tartar. Soak the madder in warm water over night. Dissolve the cream of tartar in soft water, boil five minutes, and skim it.

Wet the articles to be colored in strong soap-suds, and boil three hours in the alum and tartar water; wring out and air them. Then put the articles in the madder, have it warm over a slow fire, keep stirring with the hand for three hours; during that time wring and air them two or three times, and note the time required for airing, as they must be in the dye three full hours, or the color will fade; then wring out the articles. For the above quantity, dissolve well two quarts of soft soap in the dye; put them in for five minutes, then wring out and dry; after which wash thoroughly in soap-suds. While airing and drying, they should not be allowed to freeze. To save the madder after wringing out to air, shake the articles over a tub, and return the chips to the dye. After coloring the above, if desired it will color old very well. I have always used a brass kettle for dyeing.

RICE PUDDING, WITH OR WITHOUT RAISINS.—One pint of cooked rice, one pint of milk, one teaspoonful of salt, and the yolks of four eggs. Bake till done; then add the whites of the eggs, beaten to a froth, with two tablespoonsful of sugar. Bake again five minutes. Serve with liquid saucee.

ALMOND CUSTARD.—Blanch a quarter of a pound of almonds, beat fine; add a pint of cream, two spoonsful of rose water, and the yolks of four eggs. Sugar to taste.

A DOMESTIC RECIPE.—A father, who had passed innumerable sleepless nights, has immortalized himself by discovering a method of keeping babies quiet. The *modus operandi* is as follows:

As soon as the squaller wakes, set it up, propped by a pillow, if it cannot sit alone, and smear its fingers with thick molasses, then put half a dozen feathers into its hands, and it will sit and pick the feathers from one hand to the other until it drops asleep. As soon as it wakes again, more molasses and feathers; and, in place of the nerve-astounding yells, there will be silence and enjoyment unspeakable.

WIGGS.—Half a pint of warm milk, three-quarters of a pound of flour, three spoonsful of yeast. Let it rise, and work into it four ounces each of sugar and butter, and a few caraway seeds. Bake quick.

AN EXCELLENT COMMON FRIED CAKE.—One cupful of sugar, one cupful of cream, three eggs, some cinnamon or nutmeg, and a teaspoonful of saleratus. Cut in jumbles or in strips, and twist and fry in lard.

BANNOCK.—Two cupsful of meal, two cupsful of flour, one teaspoonful of salt, one teaspoonful of ginger, and four spoonsful of molasses. Wet up with buttermilk, adding a teaspoonful of saleratus. Bake one hour.

HOW TO RENDER LADIES' DRESSES NON-COMBUSTIBLE.—Add a little powdered alum to the starch used in preparing them. The alum will prevent them from bursting into flame when placed in contact with any burning substance.

RAISED BISCUIT.—To three pints of sifted flour, add one quart of boiling milk. When milk-warm, stir into the batter one cupful of potato or home-brewed yeast, and a teaspoonful of salt. When light, add one teaspoonful of soda, four spoonsful of melted butter, two tablespoonsful of white sugar, with flour stiff enough to mould. Make into small cakes. When light, bake in a quick oven.

MILK TOAST.—Boil a pint of rich milk with a tablespoonful of butter, and one of flour. Have ready, in a dish, eight or ten slices of bread, toasted. Pour the milk over them hot, and cover it until it goes to the table.

TO PICKLE ONIONS.—When gathering your onions in the Fall, save all the small ones for pickling.—Peel them carefully, and soak them in strong brine two or three weeks. This takes out the strong taste and smell. Then take them out of the brine and soak them twenty-four hours, in weak vinegar.—When taken out from this, insert a clove in the top of each onion, and lay them carefully in a stone jar, and cover with cold vinegar. They will be fit for use in a few days.

INDIAN PUDDING.—To one quart scalding milk add seven tablespoonsful of Indian meal. Let it seald well; then add one teacup best molasses, teaspoonful of salt, ginger, cinnamon and allspice to the taste. Stir thoroughly, put in a deep dish, and bake five or six hours. Sauce, *good* butter. This is the old-fashioned New England pudding.

BUTTERNUT PIE.—One quart of milk, two eggs, a coffee-cupful of pulverized butternut meats, and a little sugar and nutmeg.

ROLLS.—One quart of flour, one egg, teaspoonful of sugar, large spoon of yeast, make up with warm water, and set to rise.

CHEAP PAINT FOR A BARN.—An excellent and cheap paint for rough wood work, is made of six pounds of melted pitch, one pint of linseed oil, and one pound of brick dust or yellow ochre.

PREMIUM LIST

OF THE

STATE AGRICULTURAL SOCIETY

FOR THE

FOURTH ANNUAL FAIR,

TO BE HELD AT

COLUMBIA, SOUTH CAROLINA,

ON THE 8TH, 9TH, 10TH AND 11TH OF NOVEMBER, 1859.

Field Crops.

SHORT STAPLE COTTON.

The greatest production upon five acres of restored upland by the aid of DOMESTIC MANURES, with the mode of cultivation, the amount and kind of manure used, the preparation of the soil, period of planting, the number of times plowed and hoed, <i>the variety of cotton</i> , the land to be measured, and the cotton weighed and vouched for by affidavit,.....	\$30
Same upon two acres under the same requisitions,.....	20
Greatest production upon one acre under the same requisitions,.....	10
Five acres, under the same requisitions, by the aid of MINERAL OR IMPORTED MANURES,.....	30
Same upon two acres, under the same requisitions,.....	2
One acre under the same requisition,.....	10
The largest crop of corn grown upon 20 acres or more of restored upland, the mode of planting, manuring, kind of manure used, and variety of corn stated, under same requisitions,.....	30
The largest crop of corn upon 10 acres under the same requisitions,.....	20
Largest crop of corn on 5 acres, same requisitions,.....	15
Largest crop upon one acre, same requisitions,.....	10
Largest crop of corn upon two acres or more of improved lowland, under requisitions the same as above,.....	20
Same upon one acre, under the same requisitions,.....	10
Largest average yield of wheat upon 50 acres or more, under same requisitions,.....	30
Largest crop of wheat grown upon two acres or more, the same requisitions as above in all particulars, and to weigh 60 lbs. per bushel,.....	20
Largest crop upon one acre, same requisitions,	10
Largest crop Chinese Sugar Cane Syrup per acre,.....	20
Second largest,.....	10
Largest crop of Pea Vine Hay, one bale to be sent as a sample, with certificate of quantity made,.....	10
Largest crop of Native Grass Hay, the same as above,...	10
Largest crop of Cultivated Grass per acre, upon affidavit,	10
Largest crop of Oats, kind, &c., raised per acre,.....	10
Largest crop of Rye, kind, &c., raised per acre,.....	10
Largest crop of Barley, kind, &c., raised per acre,.....	10
Largest crop of Sweet Potatoes, raised per acre, one-eighth of an acre to be dug,.....	10
Largest crop of Irish Potatoes, raised per acre,.....	10

Largest crop of Turnips raised per acre,.....	10
Largest crop of Ground Peas or Pindars, raised per acre,	10
Largest crop of Field Peas raised per acre,.....	10
To the farmer or planter who makes the largest nett yield of crops per hand, under above requisitions, for 1859,	30

As cotton and turnips cannot be gathered by the time awards are made at the Annual Fair, all competitors for these crops must send in their statements to the Executive Committee by the 15th December, by whom the awards will be made.

Exhibitors of all the above crops must *state in writing, in full*, to the Secretary, all the requisitions as laid down for corn, cotton, &c., as above, when the articles are entered upon his books for exhibition, with the certificates for the measurement of lands and pounds, and bushels per acre; without which the Judges will be required to withhold their awards, and exhibitors not complying with these requisitions will not be allowed to compete for the Premiums of the Society.

N. B.—Competitors will bear in mind, that the above premiums are offered for crops grown upon swamp or low land reclaimed by skill and judicious treatment, or upland restored by mineral or domestic manures, &c., to a condition of fertility. The plats must be distinct—i. e. A premium will not be awarded to the best two acres, and the best one acre of the same two acre-plat.

SAMPLES OF FIELD CROPS.

Best bushel of Wheat, with a sheaf of the same,.....	\$5
bushel of Corn, with a dozen ears,.....	5
variety of Sweet Potato, a sample of 1 bushel,.....	5
variety of Field Pea, a sample of 1 bushel,.....	5
variety of Black Seed, or Sea-Island Cotton, six stalks,	5
variety of short staple Cotton, six stalks,.....	5
bushel of water-flowed Seed Rice, with a sheaf of same,.....	5
bushel of Upland Seed Rice, with a sheaf, &c.,.....	5
bushel of Oats, with the same,.....	5
bushel of Barley, with the same,.....	5
bushel of Rye, with the same,.....	5
bushel of Ground Peas,.....	5
bushel of Irish Potatoes,.....	5
collection of Grass Seed, adapted to Southern culture,	6

Best bale of Hay, South Carolina,.....	\$5
sample of Rice (one quart) selected from a lot of not less than twenty barrels, with the certi- ficate of factor of the sale,.....	5
For the best specimen Turnips, one bushel,.....	5
For the best specimen Hops, not less than one peck,.....	5
For the best specimen Pumpkins,.....	5

Exhibitors of crops must give in writing to the Secretary a full account of each crop offered, its adaptation for profitable cultivation, &c. Exhibitors of hay must give the mode of cultivating, curing, harvesting, &c.

COTTON BALES AND WOOL.

Best 1 bale of Upland Cotton,.....	\$20
Second best 1 bale of Upland Cotton,.....	10
Best 1 bale of Sea-Island Cotton,.....	20
Second best 1 bale of Sea-Island Cotton,.....	10
Best bale of Wool not less than 100 lbs.,.....	20
Second best bale of Wool, as above,.....	10

The cotton and wool must be on the Fair Ground during the Exhibition to claim the Premium, and must be of superior quality.

Domestic Animals—Cattle.

FIRST CLASS.—DEVONS.

Best Bull, 3 years old or upwards,.....	\$15
Second best Bull, same age,.....	10
Best Bull, 2 to 3 years old,.....	12
Second best Bull, 2 to 3 years old,.....	8
Best Bull, 1 to 2 years old,.....	5
Second best Bull 1 to 2 years old,.....	Silver.
Best Bull Calf,.....	Silver.
Best Cow, 3 years old or upwards,.....	15
Second best Cow, 3 years old or upwards,.....	10
Best Heifer, 2 to 3 years old,.....	12
Second best Heifer, 2 to 3 years old,.....	8
Best Heifer, 1 to 2 years old,.....	5
Second best Heifer, 1 to 2 years old,.....	Silver.
Best Heifer Calf,.....	Silver.

SECOND CLASS.—DURHAMS OR SHORT HORNS.

Best Bull, 3 years old, or upwards,.....	\$15
Second best Bull, 3 years old or upwards,.....	10
Best Bull, 2 to 3 years old,.....	12
Second best Bull, 2 to 3 years old,.....	8
Best Bull, 1 to 2 years old,.....	5
Second best Bull, 1 to 2 years old,.....	Silver.
Best Bull Calf,.....	Silver.
Best Cow, 3 years old or upwards,.....	15
Second best Cow, 3 years old or upwards,.....	10
Best Heifer, 3 to 4 years old,.....	12
Second best Heifer, 2 to 3 years old,.....	8
Best Heifer, 1 to 2 years old,.....	5
Second best Heifer, 1 to 2 years old,.....	Silver.
Best Heifer Calf,.....	Silver.

THIRD CLASS.—AYRSHIRES.

Best Bull, 3 years old or upwards,.....	\$15
Second best Bull, same age,.....	10
Best Bull, 2 to 3 years old,.....	12
Second best Bull, 2 to 3 years old,.....	8
Best Bull, 1 to 2 years old,.....	5
Second best Bull, 1 to 2 years old,.....	Silver.
Best Bull Calf,.....	Silver.
Best Cow, 3 years old or upwards,.....	15
Second best Cow, 3 years old or upwards,.....	10
Best Heifer, 2 to 3 years old,.....	12
Second best Heifer, 2 to 3 years old,.....	8
Best Heifer, 1 to 2 years old,.....	5
Second best Heifer, 1 to 2 years old,.....	Silver.
Best Heifer Calf,.....	Silver.

FOURTH CLASS.—BRAHMINS.

Same premiums as above. All animals, one-fourth Brahmin blood or more, to compete.

FIFTH CLASS.—GRADES.

Same premiums as above. All grades to be half blood or more.

SIXTH CLASS.—NATIVES.

Same premiums as above.	
Best Milk Cow of any breed,.....	\$15
Second best Milk Cow, of any breed, to be milked on the ground,.....	10
Best yoke Oxen South Carolina raised,.....	10
Second best yoke of Oxen South Carolina raised,.....	5

Horses.

(Owned by residents of this State, unless otherwise specified.)

FIRST CLASS—HEAVY DRAFT HORSES.

Best Stallion over 4 years old,.....	\$15
2d best Stallion, over 4 years old,.....	10
Best Stallion over 3 years old,.....	12
2d best Stallion, over 3 years old,.....	8
Best Stallion over 2 years old,.....	10
2d best Stallion, over 2 years old,.....	5
Best Stallion, one year old,.....	8
2d best, one year old,.....	5
Best Brood Mare,.....	12
2d best Brood Mare,.....	10
Best Brood Mare and Colt,.....	15
2d best Brood Mare and Colt,.....	10
Best Filly, 3 years old,.....	12
2d best Filly, 3 years old,.....	8
Best Filly, 2 years old,.....	10
2d best Filly, 2 years old,.....	5
Best Filly, 1 year old,.....	8
2d best Filly, 1 year old,.....	5

SECOND CLASS—LIGHT DRAFT HORSES.

Best Stallion, over 4 years old,.....	\$15
2d best Stallion, over 4 years old,.....	10
Best Stallion, over 3 years old,.....	12
2d best Stallion, over 3 years old,.....	8
Best Stallion, over 2 years old,.....	10
2d best Stallion, over 2 years old,.....	5
Best Stallion, 1 year old,.....	8
2d best 1 year old,.....	5
Best Brood Mare,.....	12
2d best Brood Mare,.....	10
Best Brood Mare and Colt,.....	15
2d best Brood Mare and Colt,.....	10
Best Filly, 3 years old,.....	12
2d best Filly, 3 years old,.....	8
Best Filly, 2 years old,.....	10
2d best Filly, 2 years old,.....	5
Best 1 year old Filly,.....	8
2d best 1 year old Filly,.....	5

THIRD CLASS.—BLOOD HORSES.

Best Stallion, over 4 years old,.....	\$15
2d best Stallion, over 4 years old,.....	10
Best Stallion, over 3 years old,.....	12
2d best Stallion, over 3 years old,.....	8
Best Stallion, over 2 years old,.....	10
2d best Stallion, over 2 years old,.....	5
Best Stallion, 1 year old,.....	8
2d best, 1 year old,.....	5
Best Brood Mare,.....	12
2d best Brood Mare,.....	10
Best Brood Mare and Colt,.....	15
2d best Brood Mare and Colt,.....	10
Best Filly, 3 years old,.....	12
2d best Filly, 3 years old,.....	8
Best Filly, 2 years old,.....	10
2d best Filly, 2 years old,.....	5
Best 1 year old Filly,.....	8
2d best 1 year old Filly,.....	5

FOURTH CLASS.—PONIES, INCLUDING ALL SMALL VARIETIES.

Best Stallion, over 4 years,.....	\$15
Best Mare,.....	10
Best Mare and Colt,.....	15
Best Saddle Pony,.....	15
2d best Saddle Pony,.....	10

No animal over fourteen hands high to be classified as a pony.

FIFTH CLASS.—MORGAN, CANADIAN AND IMPORTED HORSES.

Best and most thorough-bred Morgan Stallion, with degree and certificate of his purity on the side of sire and dam, where and by whom raised. [If his history and certificates are not entirely satisfactory, the premium will not be awarded, and the Judges required to reject him.].....	\$15
2d best Stallion, same requisition,.....	10
Best and largest Canadian Stallion, with certificate of purity, &c., (same as above,).....	15
2d best Canadian Stallion, same as above,.....	10
Best Morgan Mare,.....	12
Second best Morgan Mare,.....	10

SIXTH CLASS—MATCHED AND SINGLE HORSES.

Best pair of matched Horses, raised in South Carolina, \$30	
2d best, " " " " " "	20
Best pair Matched Mares, raised in South Carolina,.....	30
2d best pair Matched Mares, raised in South Carolina...	20
Best pair matched Harness Ponies, (under 14 hands)	
South Carolina raised,.....	20
Second best pair matched Harness Ponies, (under 14 hands,) South Carolina raised,.....	15
Best single-harness Horse, raised in South Carolina,.....	15
2d best single-harness Horse, raised in South Carolina...	10
Best saddle Horse, raised in South Carolina,.....	15
2d best saddle Horse, raised in South Carolina,.....	10
Best pair of matched horses, (open to the world,).....	20
single-harness Horse, (open to the world,).....	10
saddle Horse, (open to the world,).....	10

GELDINGS.

Best heavy draft Gelding, South Carolina raised,.....	\$10
Best light draft Gelding, South Carolina raised, of any age,.....	10
Best light draft Gelding, South Carolina raised, three years old,.....	8
Best light draft Gelding, South Carolina raised, two years old,.....	5
Best Farm Horse team of four, South Carolina raised, To the Stallion exhibiting the greatest number of best Colts upon the ground,.....	15
	20

EIGHTH CLASS—TROTTERS AND PACERS.

Fastest trotting Stallion,.....	15
Fastest trotting Gelding or Mare,.....	15
Fastest Pacer,.....	15
N. B. No Horse can compete under two classes.	

Jacks and Jennetts.

(To be owned in South Carolina.)

Best and largest imported Jack, with certificates, approved by the Society,.....	\$15
2d best imported Jack, same as above,.....	10
Best and largest imported Jennette, with certificates, approved by the Society,.....	10
2d best imported Jennette, same as above,.....	5
Best and largest South Carolina raised Jack, with certificates, approved by the Society,.....	15
2d best South Carolina raised Jack, same as above,.....	10
Best and largest South Carolina raised Jennette, with certificates, approved by the Society,.....	10
2d best South Carolina raised Jennette, same as above,.....	5

Mules.

(South Carolina Raised.)

Best pair of Mules, single or harness Mule,.....	\$15
Best Mule, 2 years old,.....	10
2d best Mule, 2 years old,.....	5
Best 1 year old Mule,.....	10
2d best 1 year old Mule,.....	5
Best Mule Colt,.....	5
Best Mule team of four,.....	15

N. B.—All Horses, Colts, Jacks, Jennetts and Mules, embraced in the above classes, must be completely "halter broke," or they will not be admitted upon the grounds, except at the owner's risk.

Sheep.

FIRST CLASS.—MERINOS.

Best Buck, 2 years old or upwards,.....	\$8
2d best Buck, 2 years old,.....	5
Best Buck, 1 to 2 years old,.....	5
2d best Buck, 1 to 2 years old,.....	Silver.
Best pen of Ewes, (not less than three,).....	8
2d best pen of Ewes, (not less than three,).....	5
Best pen of Ewe Lambs, (not less than three,).....	5
2d best pen of Ewe Lambs, (not less than three,).....	Silver.

SECOND CLASS.—SOUTHDOWNS.

The same premiums as above.

THIRD CLASS.—LEICESTERS OR BAKEWELL.

The same premiums as above.

FOURTH CLASS.—COTSWOLD OR NEW-OXFORDSHIRE.

The same premiums as above.

FIFTH CLASS.—AFRICAN OR BROAD TAILED.

The same premiums as above.

SIXTH CLASS.—GRADES.

The same premiums as above.

SEVENTH CLASS.—NATIVES.

The same premiums as above.

Cashmere Goats.

Best thorough-bred Buck,.....	\$5
2d best thorough-bred Buck,.....	Plate.
Best thorough-bred Ewe,.....	5
2d best thorough-bred Ewe,.....	Plate.
Best pair of Grades,.....	5
2d best pair of Grades,.....	Plate.

Swine.

Best Suffolk Boar,.....	\$8
2d best Suffolk Boar,.....	5
Best Suffolk Sow,.....	3
2d best Suffolk Sow,.....	5
Best Essex Boar,.....	8
2d best Essex Boar,.....	5
Best Essex Sow,.....	8
2d best Essex Sow,.....	5
Best Berkshire Boar,.....	8
2d best Berkshire Boar,.....	5
Best Berkshire Sow,.....	8
2d best Berkshire Sow,.....	5
Best Grazier Boar,.....	8
2d best Grazier Boar,.....	5
Best Grazier Sow,.....	8
2d best Grazier Sow,.....	5
Best Chester county Boar,.....	8
2d best Chester county Boar,.....	5
Best Chester county Sow,.....	8
2d best Chester county Sow,.....	5
Best Lincoln, Yorkshire, or other large breed Boar,.....	8
2d best Lincoln, Yorkshire, or other large breed Boar,.....	5
Best Lincoln, Yorkshire, or other large breed Sow,.....	8
2d best Lincoln, Yorkshire, or other large breed Sow,.....	5
Best Boar of any breed,.....	8
2d best Boar of any breed,.....	5
Best Sow of any breed,.....	8
2d best Sow of any breed,.....	5

Poultry.

Best pair of Southern raised Dorkings,.....	Silver.
pair barn-yard Fowls,.....	Silver.
pair large Eastern Fowls,.....	Silver.
pair Game Fowls,.....	Silver.
pair Mexican Fowls,.....	Silver.
pair Sebright Bantams,.....	Silver.
pair Domestic Turkeys,.....	Silver.
pair Bremen Geese,.....	Silver.
pair Hong Kong Geese,.....	Silver.
Best pair small Chinese Geese,.....	Silver.
pair Muscovy Ducks,.....	Silver.
pair white Aylesbury Ducks,.....	Silver.
pair black Java Ducks,.....	Silver.
pair Poland Ducks,.....	Silver.
pair Native Fowls, D. H.,.....	Silver.
pair Native Ducks,.....	Silver.
pair Native Geese,.....	Silver.

Household Department.

Best jar leaf Lard, 30 lbs,.....	\$5
2d best jar leaf Lard, 30 lbs,.....	Silver.
20 lbs. Hard Domestic Soap,.....	5
5 lbs. Toilet Soap,.....	5
samples of Jellies, Preserves, Pickles, Jams, Catsups, Syrups, Cordials, &c., with full descriptions of the processes of manufacturing and keeping the same, for each kind,.....	Silver.
Best specimen of Domestic Wine, not less than three bottles of each kind, under the above requisitions, for each kind,.....	5
2d best specimen, " " " " " "	Silver.
Best half bushel of dried Apples, Peaches, Pears, Quinces and Plums, each,.....	5
2d best specimen, " " " " " "	Silver.
Best box Domestic Prunes,.....	5
2d best specimen, " " " " " "	Silver.

Best drum dried Figs, preserved Olives, specimens of Olive Oil, Southern made and raised, each,.....	5
2d best specimen, " " " " " " " "	Silver.
Best specimens of hermetically sealed Fruits, each,.....	"
specimen Okra, or Tomato, prepared for winter use, " "	"
gallon domestic Vinegar,.....	"
specimen Tallow Candles,.....	"
specimen prepared Cayenne Pepper,.....	"
specimen Starch,.....	"
For second best specimens of any of the above,	Silver Fruit Knife.
Best sample Chinese Sugar Cane Syrup,.....	\$5
2d best sample, " " " " " " " "	Silver.

Hams, Flour and Bread.

Best Ham (cooked),.....	\$5
2d best Ham (cooked),.....	Silver.
Best barrel of South Carolina Flour, exhibited by the manufacturer,.....	5
2d best barrel of South Carolina Flour, exhibited by the manufacturer,.....	Silver.
Best Loaf of Bread,.....	5
2d best Loaf of Bread,.....	Silver.
Third best, " " " " " " " "	Silver Fruit Knife.
Best Fruit, Sponge or Soda Cake, each,.....	Silver.

Dairy.

Best jar of Butter, 10 lbs.,.....	\$10
2d best jar of Butter,.....	8
3d best jar of Butter,.....	5
Best South Carolina made Cheese,.....	10
2d best South Carolina Cheese,.....	5

Aplary.

Best specimen of South Carolina Honey, 10 lbs.,.....	\$5
2d best specimen of South Carolina Honey,.....	Silver.

Orchard and Nursery.**FRUITS.**

Best 100 Oranges, open Culture,.....	\$5
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APPLES.

Best and largest variety of Table Apples,.....	\$5
Best and largest collection of Southern Seedling Apples, each variety named and labelled, grown by the exhibitor,.....	10
Best late Seedling Apple, for all purposes, with description of the tree, history of its origin, keeping, &c....	5
Best early Seedling Apple, &c.,.....	5
Best collection of Southern late Seedlings, grown by the exhibitor, with history, &c.	10

PEARS.

Best and largest variety of Pears, grown by the exhibitor,.....	\$10
Best late Seedling, for all purposes, with description of tree, history, &c.,.....	5
Best early Seedling (as above),.....	5
Largest and best variety of Southern Seedling Pears, grown by the exhibitor,.....	10

N. B.—An *ad interim* Committee will be appointed to examine all early fruits presented, and the successful contributor must present a drawing of the same colored to nature, at the Annual Meeting, in order to secure the premium.

PEACHES, QUINCES, GRAPES, &c.

Best collection of Peaches, Seedling or others, grown by exhibitor,.....	\$10
Best collection of Quinces,.....	5
Best collection of Grapes, grown under glass,.....	5
Best collection of Native Grapes, with history of keeping, preserving, &c.,.....	5
Best dozen specimens of the Lime, Lemon, or other Southern fruits not named above, each,.....	Silver.

FRUIT TREES, &c.

Largest and best collection of Southern Seedling Apple Trees, grown by exhibitor,.....	\$10
Largest and best collection of Peach Trees, grown by exhibitor,.....	10
Largest and best collection of Pears, grown by exhibitor,.....	10
Greatest variety and best collection of Strawberry Plants,.....	5
Greatest variety and best collection of Raspberry Plants,.....	5

Arboriculture and Floriculture.

Best collection of Evergreen Trees,.....	\$10
Best collection of Green House Plants, exhibited by one person,.....	10
Largest collection of Flowers, exhibited by one person,.....	10

Horticulture.

Best and greatest variety of Garden Vegetables, for table use, raised by one individual,.....	\$10
A new and valuable variety of Vegetable, with evidence of its excellence or utility,.....	5
Best and largest collection of Garden Seed, Southern raised, not less than twenty approved varieties, exhibited by one individual, and best for Southern Horticulture,.....	5

Southern Domestic Fabrics.

Best pair Woolen Blankets,.....	\$5
2d best pair Woolen Blankets,.....	Silver.
Best pair Cotton Blankets,.....	5
2d best pair Cotton Blankets,.....	Silver.
Best pair Negro Blankets,.....	5
2d best pair Negro Blankets,.....	Silver.
Best ten yards (negro) Woollen Cloth,.....	5
2d best, " " " " " " " "	Silver.
Best ten yards Woollen Carpeting,.....	\$5
2d best, " " " " " " " "	Silver.
Best ten yards Stair Carpeting,.....	\$5
2d best, " " " " " " " "	Silver.
Best Cotton Carpeting,.....	5
2d best, " " " " " " " "	Silver.
Best ten yards Woollen Jeans,.....	\$5
2d best, " " " " " " " "	Silver.
Best ten yards cotton Jeans,.....	\$5
2d best, " " " " " " " "	Silver.
Best cotton or mixed Coverlet,.....	5
2d best, " " " " " " " "	Silver.
Best Coverlet of Wool,.....	5
2d best, " " " " " " " "	Silver.
Best home-made Mattress,.....	5
2d best, " " " " " " " "	Silver.
Best pair of Woollen Socks,.....	Silver.
Best pair of Woollen Stockings,.....	Silver.
Best pair cotton Socks,.....	Silver.
Best pair of cotton Stockings,.....	Silver.
Best pound Cotton Sewing Thread,.....	Silver.
Best pound Woollen Yarn,.....	Silver.
Best cotton Comforts,.....	5
2d best cotton Comforts,.....	Silver.

Silk.

Best specimen of Sewing Silk,.....	Silver.
specimen of Reeled Silk,.....	Silver.
peck of Cocoons,.....	Silver.
Stockings, or Half Hose,.....	Silver.
Best Handkerchief or Shawl,.....	5
2d best Handkerchief or Shawl,.....	Silver.
Best specimens of Silk and Wool Cloth, 3 yards,.....	5
2d best specimens of Silk and Wool Cloth, 3 yards,.....	Silver.
Best specimens of Silk and Cotton Cloth, 3 yards,.....	5
2d best specimens of Silk and Cotton Cloth, 3 yards,.....	Silver.

Needle and Fancy Work.**FRENCH NEEDLE WORK.**

Best lady's Dress,.....	\$10
2d best, " " " " " " " "	5
Best Child's Dress,.....	5
2d best, " " " " " " " "	Silver.
Best Sack or Basque,.....	5
2d best, " " " " " " " "	Silver.
Best Collar and Chemisette,.....	5
2d best " " " " " " " "	Silver.
Best Undersleeves,.....	Silver.
Handkerchief,.....	"
Morning Cap,.....	"
Shawl,.....	"
Mante,.....	"
Best specimen of work in this department not enumerated,.....	5
2d best specimen of work in this department, not enumerated,.....	Silver.

SPANISH OR AMERICAN NEEDLEWORK.

Best Collar and Chemisette,	\$5
2d best, " " " " " "	Silver.
Best Child's Dress,	5
2d best, " " " " " "	Silver.
Undersleeves,	"
Handkerchief,	"
Berthe Cape,	"
Best plain sewing, by hand,	"
Best specimen in this department, not enumerated,	5
2d best, " " " " " "	Silver.

KNITTING, NETTING AND CROCHET IN THREAD.

Best Collar and Chemisette,	5
Undersleeves,	Silver.
Handkerchief,	"
Morning Cap,	"
Infant's Cap,	"
Infant's Waist,	"
Child's Hat,	"
Child's Socks,	"
Cradle Quilt,	5
Counterpane,	10
2d best Counterpane,	5
Fringe and Lace,	5
"Tidy,"	Silver.
Bonnet,	5
Cape (Berthe),	Silver.
Shawl,	5
Sett Toilet Mats,	Silver.
Oversocks,	"
Undershirts,	"
Best Flower Vases,	"
Best Flower Brackets,	"
Side-board Cover,	"
Specimen of work under this department, not enumerated,	5
2d best specimen of work under this department, not enumerated,	Silver.

KNITTING, NETTING OR CROCHET, IN CREWEL OR SILK.

Best Piano Cover,	\$5
Table Cover,	5
Ottoman Cover,	Silver.
Shawl,	\$5
Scarf for Neck,	Silver.
Pair of Undersleeves,	"
Head Dress,	"
Child's Hat or Cap,	"
Child's Spencer or Sack,	"
Counterpane,	\$10
Cradle Quilt,	5
Reticule,	Silver.
Purse,	"
Gloves,	"
Hose, long or short,	"
Child's Socks,	"
Lamp or Vase Mat,	"
Slippers,	"
Sett Dessert Mats,	"
Napkin Rings,	"
Cushion,	"
Child's Shirt,	"
Child's Drawers,	"
Tidy,	"
Article not enumerated,	5
2d best article not enumerated,	Silver.

PATCH WORK IN COTTON, &c.

Best Patch Work Quilt in Cotton,	\$ 8
Second best Patch Work Quilt, in Cotton,	5
3d best " " " " " "	Silver.
Best Patch Work Quilt in Silk,	10
Second best Patch Work Quilt in Silk,	5
Best Raised Work Quilt,	8
2d best Raised Work Quilt,	5
Best Imitation of Marseilles,	10
2d best Imitation of Marseilles,	5
Best Woven Counterpane, —South Carolina made,	10
2d best Woven Counterpane, —South Carolina made,	5
Best Silk Comfort,	5
2d best Silk Comfort,	Silver.
Best Crib Quilt, in silk,	5
2d best Crib Quilt, in silk,	Silver.
Best Crib Comfort,	Silver.

RAISED WORSTED WORK—FRAMED TAPESTRY WORK, &c.

Best picture in tapestry,	\$10
Second best picture in tapestry,	5
Best Piano Cover, tapestry,	10
Second best Piano Cover, tapestry,	5
Best Piano Cover, raised work,	10
Second best Piano Cover, raised work,	5
Best Table Cover Tapestry,	5
2d best, " " " " " "	Silver.
Best Table Cover, raised work,	5
Second best Table Cover, raised work,	Silver.
Best Chair Cover, raised work,	"
Ottoman Cover, raised work,	"
Ottoman Cover Tapestry,	"
Footstool Cover, raised work,	"
Hearth-rug, raised work and tapestry,	"
Pair of Fire Screens, raised work,	"
Lamp or Vase Mat,	"
Cushion,	"
Slippers,	"
Bell Rope,	"
Specimen not enumerated,	5
2d best, " " " " " "	Silver.

EMBROIDERY IN SILK FLOSS, CHAIN STITCH OR BRAID.

Best Lady's Dress,	\$5
2d best, " " " " " "	Silver.
Lady's Shawl,	5
2d best Lady's Shawl,	Silver.
Lady's Mantle,	"
Lady's Scarf or Neck Tie,	"
Lady's Apron,	"
Lady's Vest,	"
Child's Dress,	"
Child's Sack or Spencer,	"
Cloak,	"
Lady's Reticule,	"
Fire Screens,	"
Portfolio, embroidered,	"
Braided Tidy,	"
Braided Cushion,	"
Toilet Set,	5
Lady's Cap,	Silver.
Smoking Cap,	"
Specimen not enumerated,	5
2d best specimen not enumerated,	Silver.

STRAW, WILLOW WORK AND SIMILAR FABRICS, S. C. MANUFACTURE

Best Bonnets, Hat or Cap,	Silver.
Willow Work Basket,	"
Willow Clothes Basket,	"
Infant's Toilet Basket,	"
Sett Table Mats,	"
Nest Willow, or Osier Basket,	\$5
Straw Basket,	Silver.

ROSIN, WAX, SHELL AND BEAD WORKS.

Best Vase Flowers, Wax,	5
Second best, Wax,	Silver.
Best Basket Fruit, Wax,	5
Second best Basket Fruit, Wax,	Silver.
Best Boquet Flowers, Wax,	5
Second best,	Silver.
Best Vase Rosin Flowers,	5
Second best Vase Rosin Flowers,	Silver.
Best Basket Rosin Fruit,	5
Second best Basket Rosin Fruit,	Silver.
Best Shell Pyramid,	5
Second best,	Silver.
Best Shell Box,	"
Best specimen Bead Work,	5
Second best specimen Bead Work,	Silver.
Best specimen Shell Work in any design, not on the list,	"

LEATHER GILDING AND BRONZING.

Best Leather Basket,	Silver.
Picture Frame,	"
Etagera,	"
Table,	"
Chairs,	"
Best Bronze Table,	"
Picture Frame,	"
Best specimen in any design,	"

Southern Manufactures.

Best Bale Osnaburghs, 8 oz. to the yard, Society's Gold Medal.	
Bale Shirting,	\$10
Bale Sheetings,	10
Bale Kerseys,	10
Bale Stripes,	10
Bale Cotton Yarns, comprising all the Nos.,	10
Piece of Bagging, made of Cotton,	10
Piece of Bagging, made of Long or Southern Moss,	10
Piece of Plains,	5
Piece of Satinets,	5
Piece of Lindseys or Kerseys,	5
Piece of Plain Flannel,	5
Piece of Twilled Flannel,	5
Bale of Blankets, Southern Wool,	10
Cotton Rope,	5
Cotton Plow Lines,	5
Woolen Coverlet,	5
Cotton Coverlet,	5

PAPER.

Best Writing Paper, to embrace one Ream of Medium, Cap, Letter and Note, Society's Gold Medal.	
Best Printing Paper, one ream each of Book and News, Silver Medal.	
Best Wrapping Paper, Silver Medal.	
Best Ream of Printing or Wrapping Paper, manufactured from some material not heretofore used and known to be as good as paper now in use, Gold Medal.	
Best specimen of Bookbinding,	5
Second best,	Silver Medal.
Best specimen of Book Printing in South Carolina,	5

HATS.

Best dozen, South Carolina manufacture, Negro Hats,	\$8
Best Gents' Hat,	5

Mechanical Premiums.**SOUTHERN FARMING IMPLEMENTS.**

Best Cast Mould Board one-horse Plow,	\$5
Cast Mould Board two-horse Plow,	5
Wrought Iron one-horse Mould Board Plow,	5
Wrought Iron two-horse Mould Board Plow,	5
Wrought Iron Subsoil Plow,	5
Wrought Iron Cotton Scraper Plow,	5
Wrought Iron Sweep,	5
Turning Plow on Scooter Stock,	5
South Carolina Cultivator,	5
Stocked Plow, offered by a slave, with certificates from the master or overseer,	5
One-horse Turning Plow, South Carolina made,	5
Two-horse Turning Plow, South Carolina made,	5
Cotton Scraper Plow, South Carolina made,	5
Subsoil Plow, South Carolina made,	5

RULE. All Plows to be tested in plowing match before premiums are awarded.

Best and largest lot of Agricultural and Horticultural Implements,	Gold Medal.
Club Axe, South Carolina made,	Silver Medal.
Broad Axe, South Carolina made,	" "
Drawing Knife, South Carolina made,	" "
Manure Fork, South Carolina made,	" "
Hoe, South Carolina made,	" "
Portable Work Bench, with full set of Plantation Carpenter's Tools,	10
Southern Thresher,	Gold Medal.
Southern Fan,	Silver Medal.
Southern Straw Cutter,	" "
Southern Corn and Cob Crusher,	" "
Southern Corn Sheller,	" "
Southern Grain Cradle,	" "
Southern Seed Planter,	" "
Cotton Gin, South Carolina made,	Gold Medal.
Cotton Press, open to the world,	" "
Cotton Gin, open to the world,	\$10
Southern Road Wagon,	10
Southern two-horse Wagon,	5
Southern Dump Cart, one horse,	5
Ox Cart,	5
Ox Yoke,	Silver Medal.
Southern Farm Gate and Hinges,	" "
Simplicity of construction not detracting from the efficiency of the article, will be viewed as the greatest merit.	

MACHINERY.

Best Steam Engine for Agricultural purposes, at work on ground,	Gold Medal.
Improved Grist Mill,	\$10
Plantation Saw Mill, by steam, water or horse power,	10
Lathe for Metal,	Silver Medal.
Lathe for Wood,	" "
Rope-Twisting Machine, for plantation use,	" "
Sugar Mill, cast,	10
Sugar Mill, wood,	5

MANUFACTURES IN WOOD AND IRON.

Best Secretary and Book Case, South Carolina made,	5
Side-board and Bureau, South Carolina made,	5
Sofa, South Carolina made,	5
Bedstead, South Carolina made,	5
Sett for Chairs, South Carolina made,	5
Sett common Chairs,	Silver Medal.
Invalid Chair, South Carolina made,	" "
Picture Frames,	" "
Dining Table, South Carolina made,	" "
Tin or Wire Safe, South Carolina made,	" "
Kitchen Table, with Shelves and Drawers, South Carolina made,	" "
Window Sash and Blinds, each, South Carolina made,	" "
Panel Door, South Carolina made,	" "
Dozen Cedar, Cypress, Juniper and Pine Buckets, each, South Carolina made,	" "
Dozen Cedar, Cypress, Juniper and Pine Tubs, each, South Carolina made,	" "
Dozen Broom Corn and Palmetto Brooms, each, South Carolina made,	" "
Blacksmiths' Belows, South Carolina made, for plantation use,	" "
Rifle Gun, South Carolina made,	" "
Double-barrelled Gun, or Fowling Piece, South Carolina made,	" "
Close family Carriage, combining convenience, safety, lightness, S. C. made,	Gold Medal.
Open Buggy,	Silver Medal.
Top Buggy,	" "
Best and largest exhibition of Mechanic's Tools, Southern made,	" "
Best and largest exhibition of Iron Castings,	" "
Specimen of Bar and Round Iron,	" "
Saw Mill Irons,	" "
Grist Mill Iron,	" "
Sett Blacksmith's Tools,	" "
Washing Machine,	" "
Best specimen Plating done in South Carolina,	\$5
Second best,	" "
Best Horse Shoes, South Carolina made,	" "
Best Horse Shoe Nails,	" "

MANUFACTURES OF LEATHER, SOUTHERN MADE.

Best and most useful Carriage Harness,	Silver Medal.
Best and most useful double Buggy Harness,	" "
Best single Buggy Harness,	" "
Best and most useful Wagon Harness,	" "
Best and most useful Gentlemen's Saddle,	" "
Best and most useful Lady's Saddle,	" "
Best dozen Brogans,	" "
Best pair of Boots,	" "
Best half dozen pair Gents' Shoes,	" "
Best half dozen pair Ladies' Shoes,	" "
Largest and best collection of Southern Tanned Leather, consisting of Kip, Calf, Sole and Harness,	5
Best Side, Upper, Sole and Harness Leather, each,	Silver Medal.
Best half dozen Calf Skins,	" "
Best side of oil-dressed Whang Leather,	" "
Best dozen dressed Sheep Skins,	" "
Best dozen dressed Goat Skins,	" "
Best specimen of plantation-tanned Leather, for plantation use,	5

CHEMICAL MANUFACTURES, OILS, CEMENT MINERALS, &c.

Best case or chest of genuine Medicine, suitable for family use and the Southern practitioner—Silver Cup,	\$10
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Best specimen of cold-pressed Castor Oil,	Silver Medal.
Best specimens of Linsed, Lard and Cotton Seed, Oil, each,	" "
Best bag of Salt,	" "
Best barrel of Spirits of Turpentine,	" "
Best barrel of Rosin,	" "
Best barrel of Tar,	" "
Best specimen of Lino, Gypsum, Water Cement and Pearl Ash, a barrel of each,	" "
Best specimen of Southern made Pint, of Southern materials, different colors, mixed, applied and dry,	" "
Best French Burr Mill Stones, Southern Manu- facture,	" "
Best Oil Stone and Whetstone,	" "

MANUFACTURE OF STONE, MARBLE, &c.

Best Marble Monument and Mantle Piece, each, in South Carolina Marble,	\$5
Best and largest exhibition of Stone Ware,	5
Best specimens Fire Brick, Terra Cotta, each,	Silver Medal.
Best South Carolina Mill Rock for grinding Indian Corn,	10
Best specimen of Granite, turned in lathe,	Silver Medal.
Specimen Polished Granite,	" "
Specimen of Porcelain Ware, So. Ca. made,	5
Specimen of Granite Ware, " "	5
Specimen of Stone Ware, " "	5
Specimen South Carolina Brick,	5
Second best specimen South Carolina Brick,	Silver.

Plowing Match.

Best Plowing by a White Man,	\$10
" " " " Boy	10
For best Plowing by slave,	5
For best Plowing by negro boy 13 to 16 years old,	5

The Plowing Match will come off during the Fair. Grounds will be prepared for the same, and entrance open to horses and mules.

Judges in this department will be governed in their awards by the depth and width of the furrow slice turned by the plow of each competitor, and the time employed to complete his work.

Plows must be deposited at the Secretary's office on the first day of the Fair. Those of Southern invention and manufacture, if of equal merit, to have precedence.

Sculpture and Painting, by Native Artists.

For best specimen of Sculpture,	\$30
For the best Cameo,	5
For best Head in Plaster,	Silver Medal.
For the best painting in oil of the Fair Grounds, buildings, &c.,	20
For the sketch of same,	10
For the best Ambrotype,	10
For best Historical Painting, in oil, connected with the history of South Carolina,	20
For best specimen of Animal Painting, in oil, from nature,	10
Best copy of Animal Painting, in oil,	5
For best specimen of Southern Landscape Painting, from nature, in oil,	20
Best copy of Southern Landscape Painting, in oil,	10
For best Portrait in Oil,	10
For best copy of Portrait in Oil,	Silver.
For best Portrait in Crayon,	10
For best copy of Portrait in Crayon,	Silver.
For best Fancy Drawing in Crayon,	5
For best Oil Photograph,	10
For best Water Color Photograph,	5
For best Daguerreotypes, Ambrotypes, &c.,	Silver.
For best specimen of Fruit Painting,	Silver.
For best specimen of Fancy Painting,	Silver.
For best specimen of Water Colors,	Silver.

No premium will be awarded in this Department unless the specimens on exhibition are considered really meritorious by competent judges.

Essays.

Best practical paper upon Grading, Ditching and Im- proving Land,	\$20
Best Meteorological Diary for Agricultural purposes, for the year 1859,	20
Best Essay upon re-foresting the the country, based upon experimen's,	20
Best Essay upon Sheep Husbandry,	20

Articles not Enumerated.

As many articles of merit in the various departments of labor, art, &c., which are not specially provided for in the Premium List, may be presented for exhibition and premiums, a Committee on Miscellaneous Articles will be appointed to examine and report upon, and award premiums upon all such articles worthy of premium.

The Society has offered premiums embracing nearly everything valuable in Agricultural and Mechanical Industry, Art, Science and Taste. The Premium List will be furnished by application to the Secretary, at Fair Forest P. O., South Carolina.

Regulations of the Fair of 1859.

Individuals who will pay twenty-five dollars shall become Life-Members of the Society, which entitles them to admission at all times to the Fair Grounds, to all future publications of the Society, and to compete for premiums without charge.

Individuals paying two dollars shall be Members for one year, and exhibit articles without further charge, and have free access to the Fair Grounds during Fair week. Ladies to exhibit articles free of charge.

Persons will be admitted for 50 cents each day during the continuance of the Fair, and furnished with return checks for the day.

The charge for admission of vehicles will be as follows:—Coaches, carriages, omnibuses, &c., the inmates paying for personal admission, \$1; buggies, 50 cents.

Children under twelve years of age, and servants, will be admitted with half tickets.

The pupils of Charitable Institutions will be admitted free.

All Delegates from State Agricultural Societies, Mechanics' Institutes, Editors of the Southern States, Reporters, &c., will receive a ticket upon application at the Secretary's Office, which will admit them free of charge, and entitle them to the privilege of the Grounds during the Fair week.

N. B. The term "silver" is used to denote all premiums not under \$2.50, or over \$5.

Rules for Exhibitors.

SPECIAL NOTICES.

The Secretary's Office will be opened at Columbia on the 1st November, for the purpose of receiving entries.

Persons intending to become exhibitors at the next Fair, are desired to forward their entries to the Secretary, R. J. GAGE, Columbia, S. C., after the 1st of November, which will greatly facilitate business, and prevent confusion in the Halls, and on the Grounds of the Society, and disappointment to exhibitors, which is chiefly the result of delay.

All exhibitors at the Fair must have their animals or articles entered at the Secretary's office before taking them into the enclosure. All who intend to compete for the premiums of the Society, must have their articles on the ground, and entered at the Secretary's office, at or before five o'clock on Monday evening, the 7th of November, without fail; so that they may be arranged in their respective departments, and in readiness for examination by the Judges on Tuesday morning, the 8th of November, at nine o'clock. Animals may be entered at any time previous to nine o'clock on Tuesday morning.

Ladies are particularly requested to attach cards to their articles, naming the department in which they wish them to be classed, and if not embraced by any of the departments in the Premium List, class them as Miscellaneous Fancy.

The regulations of the Society must be strictly observed by exhibitors, otherwise the Society will not be responsible for the omission of any article or animal not properly entered under its regulations.

No article or animal entered for a premium can be removed or taken away before the close of the Exhibition. No premium will be paid on animals or articles removed in violation of this rule. All articles and animals entered for exhibition must have cards attached, with the number as entered at the Secretary's office; and exhibitors, in all cases, shall obtain their cards previous to placing their articles or animals on the Fair Grounds.

All persons who intend to offer animals for sale during the Fair, shall notify the Secretary of such intention at the time of entry.

Special attention is required from competitors to the requisitions of the Society upon Field Crops, Horses, Cattle, Hogs and Sheep, Dairy and Household Department, Bacon, &c., for full written statements as required under each department, as they are important to the Judges in the several classes before their final decision.

The Executive Committee will take every precaution in their power for the safe preservation of all articles and stock on exhibition, and will be responsible only for loss or damage that may occur during the Fair. They desire exhibitors to give attention to their articles, and at the close of the Exhibition to attend to their removal.

Instruction to the Judges and Superintendents of the different Departments.

The Committees selected for the next Annual Fair are requested to report themselves to the Secretary upon the Grounds of the Society, on Wednesday morning, nine o'clock, November 9, 1859.

In no case must the judges award a *special* or *discretionary* premium.

The Judges on animals will have regard to the symmetry, early maturity, thorough breeding, and characteristics of the breeds which they judge. They will make proper allowances for the age, feeding and condition of the animals, especially in breeding classes. They are required not to give encouragement to over-fed animals.

No stock of inferior quality shall be admitted within the Grounds; and if any shall by accident be admitted, a committee shall be appointed to examine and rule out such from the Grounds.

N. B. No person whatever will be allowed to interfere with the Judges during their adjudication; and any person who, by letter or otherwise, attempts an interference or bias from misrepresentations, with the judges, will be excluded as an honorable competitor.

The Superintendents will give particular direction to all articles in their respective departments, and see that all are arranged, as near as may be, in numerical order, to lessen and facilitate the labors of the Judges in the examinations.

The Superintendents will attend each set of Judges in their respective departments, point out the different articles and animals to be exhibited.

The Judges will be expected, in all cases, to withhold premiums when the article or animal is not worthy, though there be no competition.

Animals or articles receiving premiums of the Society at this exhibition, will not be allowed to compete for prizes hereafter in the same class.

FORAGE FOR STOCK.

There will be a Forage Master on the Ground, who will furnish grain and forage at market price to the owners of stock.

Stalls will not be furnished upon the Grounds of the Society for unruly or dangerous animals, and such will be promptly excluded.

ANNUAL ADDRESS.

The Annual Address will be delivered on Wednesday 7th, by the Hon. Jos. A. WOODWARD, of Winnsboro'.

AWARD OF PREMIUMS.

The premiums will be awarded from the Executive stand, at 12 o'clock on Friday.

SALES OF STOCK.

The Auction Sales of Live Stock will take place on Thursday, at 10 o'clock, A. M., but the animals sold cannot be removed from the Grounds until the close of the Exhibition.

POLICE.

A well-regulated Police of the Society, aided by that of the city of Columbia, will be on the Grounds during the entire Exhibition, to preserve order.

All persons having business with the Society, or wishing information not here furnished, will address the Secretary at Fair Forest, S. C.

R. J. GAGE,
Secretary and Treasurer.